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 2000

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## INTRODUCTION and SUMMARY

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This is a Supplement to the 1992 Comprehensive Plan, which was adopted by the town but not accepted by the then Office of Comprehensive Planning.

This Supplement addresses the concerns raised by the reviewers. A full text of the comments along with the 1992 Plan are on file attached to this document. They should be considered a part of this Supplement.

### *The Supplement*

Eight of the eleven elements of the 1992 Plan were entirely rewritten and updated. Included in this Supplement are inventory, analysis, goals and implementation strategies for:

- ◆ Natural Resources including Water, Topography, Soil Resources, Significant or Critical Natural Resources, Agriculture and Forestry
- ◆ Marine Resources
- ◆ Historic and Archeological Resources
- ◆ Affordable Housing
- ◆ Transportation
- ◆ Water and Sewer System, a section of the Public Services element
- ◆ Fiscal Capacity
- ◆ Existing and Future Land Use Patterns.

### *Sections of the 1992 Not Re-Written*

The Population and Economy elements of the 1992 were found acceptable and therefore not rewritten, although a brief update of the population is included.

The Public Water and Sewer was the only one of the Public Service and Facilities elements re-written. Refer to the 1992 Plan for those sections not re-written: Solid Waste, Public Safety, Volunteer Fire Department, CLC Ambulance & Rescue Service, Street Lights, Fire Hydrants, Communication, Health, Culture and, Education, Cemeteries, General Administration and Services.

For a summary of the changes to the 1992 plan please see the table at the end of this section.

### *Key Issues, Policies and Strategies*

#### Natural Resources

In just 14 square miles, the town is laced through with a network of wetlands associated with meandering brooks and meadows. The largest of these is the Salt Bay. The Eastern Shore, in Damariscotta is considered a Class A Coastal Wildlife Concentration area. It is possibly one of the largest natural salt ponds on the Maine Coast.

Damariscotta is a beautiful village. The Salt Bay and the Damariscotta River define the scenic character of the Village.

The protection of three of the four great ponds, which are on DEP's impaired list, is high priority. One of these, Little Pond is particularly important because it is the source of drinking water for 1500 people, and is now exempt from expensive filtration as long as the water quality can be shown to meet the high standards for drinking water.

Strategies are all focused on effective means of protection. This will require regional cooperation, between neighboring towns,

#### Marine Resources

Damariscotta's Indian name- the abundance of fishes- is more evident by shell middens than today's catch.

The potential, however, is close to being realized again. Thanks in large part to an eight-year harvesting moratorium and other conservation measures, the 2000 alewife run rebounded to levels not seen in the past 20 years, Diminishing pollution especially in the Salt Bay is encouraging the removal of remaining constraints to a developing shellfishing industry.

The Town will actively participate in legally mandated aquaculture license hearings to assure that all interests in Town are represented.

#### Historic and Archaeological Resources

The town obviously values the many reminders of its rich history. Famous for its shell middens, the largest in New England, it also has one famous 18<sup>th</sup> Century and at least 21 well preserved 19<sup>th</sup> Century houses. The Whale Back Shell Midden, the 18<sup>th</sup> Century Chapman Hill House and 5 other 19<sup>th</sup> Century houses are listed on the National Register of Historic Places.

The Town's active Historical Society has identified 30 distinct cemeteries throughout town.

The goal is to effectively protect and preserve the integrity of the remains, buildings, and cemeteries. Recognizing that registration on the National Register of Historic



Places is not enough, effective tools including a historic preservation ordinance will be developed.

#### Affordable Housing

While the amount of affordable housing has increased in the last 10 years, and there is no obvious constraint to their construction, there is definitely a shortage of housing units, especially rental units

The Town will amend its ordinances to encourage the construction of affordable multi-family housing units.

#### Transportation

Damariscotta's road system is showing the stress of serving as the traffic hub for retail, service, summer residents, and tourists.

Road maintenance, managing congestion, and building of sidewalks are high priorities.

Through this planning process, the Town has learned the importance of preparing long range maintenance and repair plans for roads, sidewalks and bike paths. The strategy will be to develop closer coordination with MDOT's 2 and 6 years plans.

#### Fiscal Capacity

The Town has been most conservative in its fiscal management. It has financed the majority of its capital improvements with capital reserves. Even half of the new fire station was financed from reserves.

While the Fire Department has been implementing a Capital Long-Range Plan, the other departments will be developing a Capital Improvement Plan and Investment Strategy.

Damariscotta's Service Center status is dramatically demonstrated by the financial data. The town has the most tax-exempt property in Lincoln County. This is due to having the greatest number of public or charitable service providers in the region. Since these organizations, most notably the Miles Memorial Hospital, provide essential service in the area, Damariscotta is justified in seeking grants to seek at least some level of reimbursement for serving the public in the mid-coast region.

#### Future Land Use Plan

This geographically (14 sq. miles) and demographically (2,000) very small town has the appearance of a town at least 2-3 times larger. It is and has been for 200 years the regional retail and service center for the Pemaquid and South Bristol peninsulas and most of Lincoln County.

The village is a concentrated, densely developed retail district with the surrounding area also built at 19<sup>th</sup> century, pre-automobile densities. Commercial growth has occurred and is encouraged along "Business" Route 1.

Residential growth is limited by the lack of suitable land. The "growth area" is mostly the village. Through changing ordinances to allow higher density in areas served by water and sewer, the village can accommodate more multi-family units, and re-use houses in the Historic District (consistent with the Historic Commission standards to be developed). There is one area, in the southwest corner of the Town is suitable for a rural subdivision.

The commercial growth will continue along Business Route 1 and the first mile of Biscay Road along the water lines. Growth will be encouraged by developing an industrial park south of Shop 'n Save.

The Rural Non-Growth areas are those we wish to protect from development: the watersheds of Salt Bay, Little Pond, Biscay and Pemaquid Pond and the open meadows, wilderness wetland eco-systems along the creeks and Muddy Pond.

#### *Process –Public Involvement in this Re-write*

The re-write process took about one-year of intense sustained effort. The Selectmen appointed a Committee to work with the consultant in March of 1999. Please see the inside cover for membership of the Committee.

At their first meeting in April, the work to be done was outlined and assignments made. Monthly meetings were held to review drafts and develop policies. Meeting notes of all these meetings are on file with this plan.

There was also an extra meeting with DOT staff and the Selectmen to better understand how the Town could access DOT road assistance. Another meeting was held with the Selectmen on Fiscal Capacity. The Future land Use Plan was developed in conjunction with the Planning Board at two meetings.

The consultant working with the assigned committee member prepared drafts of the inventory and "issues and implications" for discussion. Each element was mailed before the meeting along with a meeting notice and agenda. The Committee discussed the issues and developed the policies and strategies. Drafts were then returned for review. Some of the elements went through as many as 7 drafts. The Damariscotta River Association was invited to comment on the Marine and Natural resource sections. They also participated with the Planning Board and the Committee in developing the Future Land Use Plan

Two public hearings on the April Draft were duly advertised

Press Coverage Judi Finn, Editor of the Lincoln County news, was a faithful participant on the committee. She did a superb job of summarizing the content and the process. In addition Richard Day, another faithful member of the Committee also writes a column for the paper. He wrote Commentary on the inadequacy of the former plan.

At least the following news articles appeared in the Lincoln County News:

December 23 '99 Commentary " Damariscotta's weak comprehensive plan has failed us"

May 4- "Damariscotta comprehensive plan draft gets first viewing"- mostly about the process

May 11<sup>th</sup>- "Two hearings on Damariscotta's comp. plan supplement"- a thorough summary of all elements and policies

May 18 " Damariscotta comprehensive plan supplement amended"- covering the first public hearing and the discussions and amendments thereupon.

June 1- Final revisions made to Damariscotta comprehensive plan" second version of above

June 22- in the article on the Town Meeting it was mentioned that the Comprehensive Plan was withdrawn pending State review.

MARCH 1992 PLAN		JULY, 2000 PLAN SUPPLEMENT	
Section	Page	Status	Page
<b>Inventory &amp; Analysis History</b>	3	Rescind and Replace with	46-58
Population	4-10	Supplemented ,both in effect	5,6
Transportation	11-13	Rescind and Replace	67-71
Land Use	14	Rescind and replace	98-104
Public Facilities and Services-Water	15	Rescind and Replace	78-81
Supply	16	Rescind and Replace	76-78
Sewerage	16	Valid,in effect	
Facilities	17	Valid, in effect	
Solid Waste	17	Valid, in effect	
Public Safety	17	Valid, in effect	
Fire Department	17	Valid, in effect	
Highway Dept	18	Valid, in effect	
CLC Ambulance	18	Valid, in effect	
Street Lights	18	Valid, in effect	
Fire Hydrants	18	Valid, in effect	
Communications	18	Valid, in effect	
Health	19,20	Valid, in effect	
Culture	20-21	Valid, in effect	
Education	21	Rescind and Replace	51-54
Recreation	21	Valid, In effect	
Cemeteries			
General Administration			
Affordable Housing	21-26	Rescind and Replace	60-65
Natural Resources	27-33	Rescind and Replace	7-30
Marine Resources	34	Rescind and Replace	34-42
Economy	35-40	Valid, in effect	
Cultural Resources	41-44	Rescind and Replace	46-58
Fiscal Capacity	46-50	Rescind and Replace	84-96
<b>Goals and Policies and Implementation</b>			
Taxation	53,54	Not based on findings in plan	Not required
Education	55&56	Not re-examined	
Transportation	57-59	Rescind and replace	72-75
Marine Resources	60-61	Rescind and Replace	42-45

MARCH 1992 PLAN		JULY, 2000 PLAN SUPPLEMENT	
Recreation	62	Valid, Keep	
Housing	64	Rescind and Replace	65
Solid Waste	65,66	Valid, Keep	
Sewage Treatment	67,68	Rescind and Replace	81-83
Communication	69	Valid Keep	
Public facilities and Services	72	Valid, Keep	
Growth Management	78-81	Rescind and Replace	105-110
Natural Resources	80-85	Rescind and Replace	30-32
Property rights	70	Opinion not re-examined ,	
Regional issues	86	Keep	
Capital Investment Plan	88	Rescind- out of date	93



### POPULATION UPDATE AND SUPPLEMENT

While the State Planning Office did not find the population section deficient, it is interesting to see if the trend and projections have changed since 1990. The Department of Human Resources issues estimates for the years between the census. They add the natural increase, births and deaths, and "estimated net migration" which they get from national figures, to the last census.

The State Planning Office and other economists use calculated models to estimate the rate of growth.

#### POPULATION ESTIMATES TO 1997

Town	Census 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Damariscotta	1,811	1,855	1,820	1,880	1,866	1,887	1,855	1,888	1,897	1,905
Bristol	2,325	2,282	2,276	2,271	2,247	2,254	2,249	2,292	2,261	2,260
Bremen	674	652	646	643	639	641	642	690	656	656
Newcastle	1,538	1,554	1,526	1,576	1,584	1,600	1,575	1,570	1,595	1,602

Source: Prepared by DHS Office of Data, Research and Vital Statistics. the years 1998-2000 were a linear projection of trend in the previous 7 years.

We are just a year short of the publication of the 2000 Census. Projecting on the 1997 estimates, the population of Damariscotta is about 1,914. The 1992 plan projected the population at 2,177 by 2,000. Using this set of estimates, the rate of growth appears to be about 5.6 %

The State Planning Office, in its Maine County Economic Forecast, foresees an average annual population growth of 1.2% for Lincoln County. (Portland Press Herald 12/9/1999) At that rate, the population should be 1,972 in 2000.

We will soon find out. It does appear that the rate of growth is not high.

The 1992 Plan did not show income data for 1990:

Per Capita Income			
	1979	1985	1990
Damariscotta	6,375	9,784	16,502
Lincoln County	5,000	8,459	13,479
Maine	5,766	9,042	12,957

#### Percent below Poverty Level

	1980	Percent	1990	Percent
Damariscotta	235	15.8	98	5.5
Lincoln County	4,248	16.7	2,883	9.6
Maine	140,996	13	128,466	10.8

The number of elderly housing complexes has increased in the last 5 years, (see Affordable Housing) so it can be assumed that the elder population has increased.

We intend to publish an update of the demographics as soon as the 2000 census is published.



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## NATURAL RESOURCES

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### STATE GOALS

TO PROTECT THE QUALITY AND MANAGE THE QUANTITY OF THE STATE'S WATER RESOURCES, INCLUDING LAKES, AQUIFERS, GREAT PONDS, ESTUARIES, RIVERS AND COASTAL AREAS.

TO PROTECT THE STATE'S OTHER CRITICAL NATURAL RESOURCES, INCLUDING, WITHOUT LIMITATION, WETLANDS, WILDLIFE AND FISHERIES HABITAT, SAND DUNES, SHORELANDS, SCENIC VISTAS, AND UNIQUE NATURAL AREAS.

### *OVERVIEW—OR OSPREY'S VIEW*

It is no wonder that, from prehistoric times to today, people and eagles have sought out and stayed awhile in this incredibly natural-resource rich area at the head of Damariscotta River estuary. The area has been bestowed all the gifts of nature—a salt water estuary, tidal flats, forest, wetlands, creeks, three large ponds and one open lake.

Damariscotta covers only 14 square miles and the extent and diversity of water resources within such a small area must be unique, even in Maine. One cannot go more than a mile without seeing untouched wetlands or wild areas.

Looking at the maps prepared in 1992 by the Maine Mapping Service we have found nine distinct natural resource sub-areas (ecosystems) that are partially or entirely within the boundaries of the Town. Listed north to south and west to east, these are as follows: Salt Bay, the Damariscotta River, Cran Meadow Brook, Back Meadow Brook, Castner Brook, Paradise Pond, Little Pond, Pemaquid Pond, and Biscay Pond. Please see most recent map prepared by Northern Geomatics on facing page.

Each of these areas will be described below using data provided by various sources. Included is information on wetlands, wildlife habitat and deer yards from the Maine Department of Inland Fisheries and Wildlife (IF&W); information on threatened and unique flora and fauna from the Department of Conservation and the State Planning Office; and water quality indicators from the Maine Department of Environmental Protection (DEP). Available data are not always complete. However, there is sufficient information to give an indication of vulnerabilities and potential threats, particularly about the ponds.

Settlement patterns and land-use controls will also be described for each area. Finally, each section will conclude with a brief discussion of the issues specific to that area.

### *Topography*

Topography varies among the nine natural area systems. In the Salt Bay area, for instance, there are wide stretches of rolling meadow landscapes. By way of contrast, Cran Meadow Brook and Back Meadow Brook, as their names indicate, comprise relatively flat meadows that meander and often become wetland terrain.

The Shoreland Zoning map indicates some areas of steep slope, greater than 20 percent, along the shores of all the water bodies. The highest point of elevation is 258 feet above sea level, west of Paradise Pond. There is another hill north of Knowlton Corner.

### *Soils*

Information about the various soil types in Damariscotta are outlined in detail in the Soil Survey of Knox and Lincoln County by the Natural resource Conservation Service. There is information relative to soil management properties, farming, limitations for development and other things. For the purpose of the Comprehensive plan, the review of soils suitability is limited to subsurface disposal system for development, because there is little or no farming in the town and the potential for development in those areas of town without public sewer system is primarily limited by ability to build adequate septic systems.

A review of the maps indicates that the following soil types are predominant in the area. Their description and limitations are listed from more detailed descriptions in the Soil Survey.

Boothbay silt loam - The slow permeability and the seasonal high water table are the main limitations to use of the soil for community development. BoB- 3-8% slopes, gently sloping, and undulating deep, and moderately well drained. BoC- 8-15% slopes, strongly sloping, and rolling deep, and moderately well drained or somewhat poorly drained.

Buxton silt loam- the slow permeability and the seasonal high water table are the main limitations to use of the soil for most types of community development. BuB- 3-8% slope; BuC- 8-15% slope

Layman rock outcrop-Tunbridge shallowness to bedrock is the main limitation to use of these soils for most types of community development. LrB-3-8% slope; LrC- 8-15% slope

Marlow- The seasonal high water table and the slow permeability (MrB, MrC, MsB and MwB) and stones on the surface (MsB, and MwB) are limitations to use of the soil as sites for most types of community development. MrB 3-8% slope; MsB 8-15% slope, MsC, MwB

Peru-The seasonal high water table and the slow or very slow permeability in the substratum are the main limitations to use of the soil as sites for community development. PaB 3-8% slope; PaC 8-15% slope; PwB

Scantic silt loam- The seasonal high water table and the slow or very slow

permeability in the substratum are the main limitations to use of the soil as sites for community development. SC

Tunbridge-Depth to bedrock is the main limitation to use of these soils for most types of community development. TrB

*Locations of soils type in the town.*

The soil types are indicated in detail on the soil maps but the following should suffice to indicate the different predominant soil types in the following locations in town.

Egypt Road to Pemaquid Lake- MsB, PdB, LrC, Sc, MsC, TrB

Back Meadow Road to Egypt Road- MsC, MsB, PdB, LrC.

Back Meadow Road to Business Route 1- PdB, MsC, LrC, PaC, and TrB.

Route 1 to Great Salt Bay- BuC, BoC, BuB, BoB, LrC.

Muddy Pond to Biscay Pond- PdB, MsB, LrC, LrB, and PdB.

West of Muddy Pond to Route 129/130- LrC, LrB, BuB, PbB,

Route 129/130 to River-EgB, PaB, MsD, HtC, BuC, and BoB.

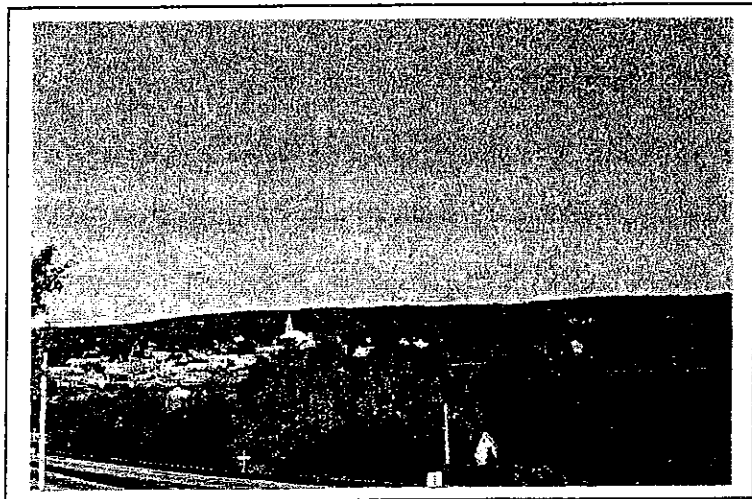
*Analysis*

The soils in Damariscotta in general are not ideal for subsurface disposal systems. Generally on individual house lots, sites can be found depending on the location in town. The Town has a 2-acre minimum in the rural part of town to assure that sites can be found. More concentrated developments such as multifamily housing projects should avoid subsurface systems and be located where they can be serviced by the municipal Sewer system. Commercial businesses such as restaurants and food stores and other large water users should be limited to the municipal system.

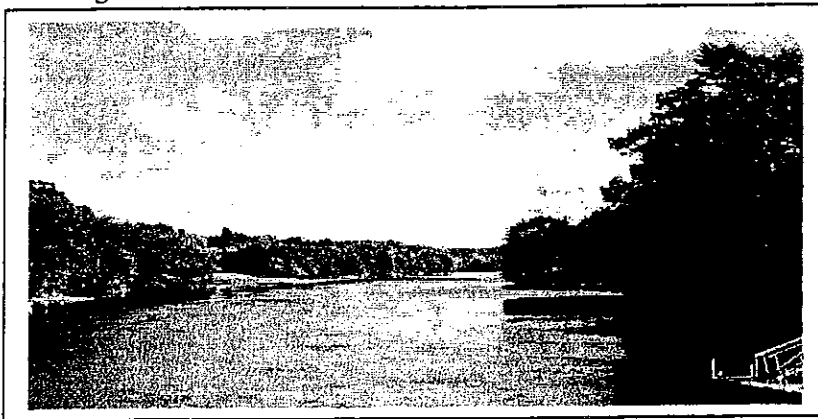
*Scenic Vistas*

Not too surprisingly in an area of so much natural beauty, there are many beautiful spots in Damariscotta. Jackie Frazier took the following pictures in the fall of 1999.

Looking East from Route 1



Looking North from the Damariscotta-Newcastle Bridge

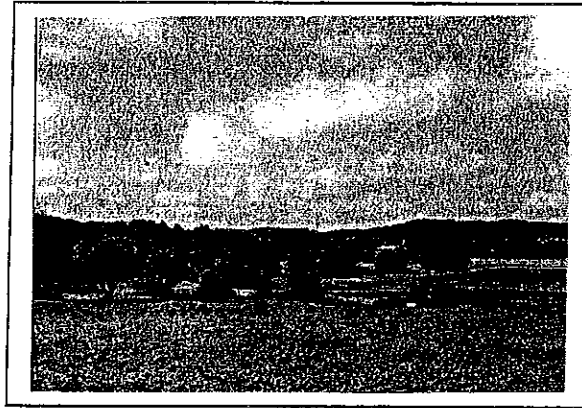


In a 1990 Comprehensive Plan survey, people listed the following as their favorite scenic spots, in order of frequency mentioned:

- ➔ View down river from the municipal parking lot (mentioned by 91 people)
- ➔ Bridge upriver from the in-town bridge (67)
- ➔ Biscay Pond (52)

- View from the Newcastle off-ramp (41)
- Bristol road (40)
- Round Top (38)
- Salt Bay (24)
- Belvedere Road (19)

Fields and Salt Bay  
from



### *Threatened and Unique Plants*

In response to a request from the Town, the Natural Resources Information and Mapping Center of Maine's Department of Conservation has provided information concerning the occurrence of rare and exemplary botanical features in Damariscotta. Such features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. According to this information, which comes from a variety of sources but does not involve systematic field inventory, only one rare plant population has been recorded within Town boundaries (most recently in 1932). This is *Ophioglossum Pusillum*, commonly called Adders Tongue Fern, which is classified as imperiled in the State of Maine because of its rarity and vulnerability to further decline. The Natural Resources and Mapping Center was unable to say where in Town this plant community was reported to be located or whether it still exists here. The center did note in a letter, however, that although this plant "has not been verified in many, many years, historic records for plants are often rediscovered when sought if suitable habitat still occurs in the area."

The Natural Resource and Information and Mapping Center has provided a list of botanical features documented as occurring in surrounding areas. The Center suggested these might also occur in Damariscotta, depending upon the availability of suitable habitat. These include:

#### *Agalinis Maritima*

#### **Saltmarsh False-Foxglove**

**State ranking:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Salt marshes, tidal, non-forested wetlands.

*Alium canadense*

**Wild Garlic**

**State ranking:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Forested wetland, hardwood to mixed forest.

*Bidens eatonii*

**Eaton's Bur-Marigold**

**State ranking:** Critically imperiled in Maine because of extreme rarity or vulnerability to extirpation.

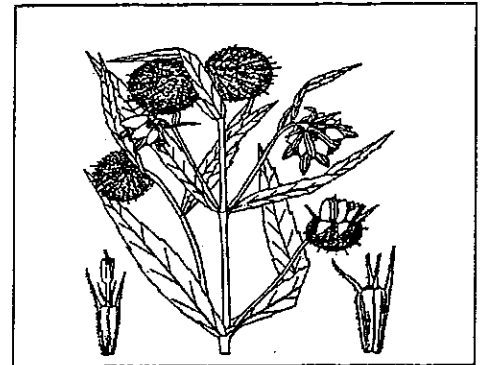
*Bidens hyperborea*

**Estuary Bur-Marigold** (Looks exactly like Eaton's Bur and picture to the right.)

**State ranking:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Localized in fresh brackish estuaries.

**Eaton's Bur Marigold**



*Chrenopodium Rubrum*

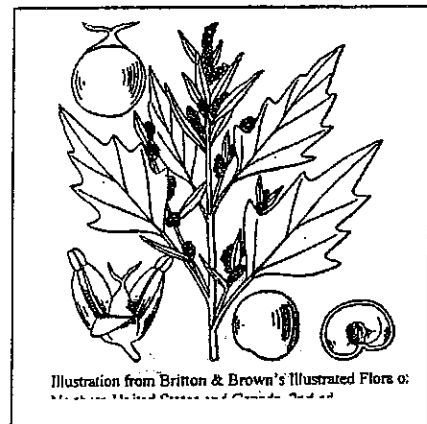
**State ranking:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Saltmarshes or saline soils, tidal wetlands.

**State Legal Status:** Threatened.

**Proposed State Status:** Based on 1998 data—threatened, rare, and with further decline, could become endangered; or few individuals left, special habitat, at edge of range.

**Coast-blite Goosefoot**



*Crassula Aquatica*

**Pygmyweed**

**State ranking:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Margins of pools and on fresh to tidal shores.

*Eragrostis Capollaris***Tiny Love-grass**

**State Status:** Endangered. Rare and in danger of being lost from the state in the foreseeable future; few individuals left, at edge of range.

**Habitat:** Dry, sandy or rocky soils, old field, roadside, dry barrens.

*Juncus Alpinoarticulata***Alpine Rush**

**State Status:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Wet shores and marshes, non-tidal river shore, seasonally wet areas.

*Ophioglossum Pusillum***Adder's Tongue Fern**

**State Status:** Imperiled in Maine because of rarity or vulnerability to further decline.

**Habitat:** Acid swales, wet thickets, shores, damp, sterile pastures.

*Podostemum ceratophyllum***Threadfoot**

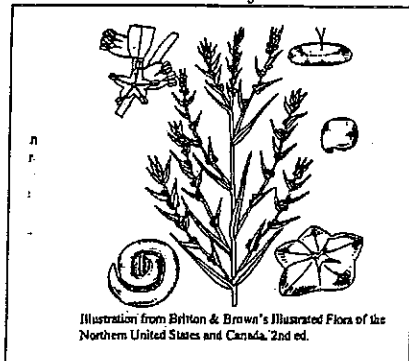
**State Status:** No status yet, but of special concern because rare in Maine; not sufficiently rare, however, to be considered threatened or endangered.

**Habitat:** On rocks and ledges in streams.

*Quercus bicolor***Swamp White Oak**

**State Status:** Critically imperiled in Maine because of extreme rarity or vulnerability to extirpation.

**Habitat:** Bottomlands, stream margins and swamps, forested wetlands.

*Suaeda calceolifoormis***American Sea Bright**

**State Ranking:** Critically imperiled in Maine because of extreme rarity or vulnerability to extirpation.

**Habitat:** Rocky or gravelly salt marshes and sea strands.

### *Critical Area Listings*

Registered Critical Areas are defined as unique natural features that have been placed on the Register of Critical Areas maintained by the Natural Areas Program of the State Planning Office. Inclusion in this register indicates that the owners of the properties and areas where these features occur have voluntarily agreed to conserve the rare or unusual features of the site. In November 1978, the State Planning Office established a Salt Bay Marine Invertebrate Area in Salt Bay and the upper river as Maine's Critical Area #335. This critical area is divided into two sections. The first of these comprises about 1.5 acres on the Damariscotta side of the bay, just north of the Route 1 bridge, and represents an important breeding ground for Horseshoe Crabs (*Limulus polyphemus*). Fossil records show that horseshoe crabs have persisted unchanged for over 200 million years. These creatures are relatively rare in Maine, which is at the northernmost extreme of their range. They breed in only four locations in the state and Salt Bay has been described as the most important of these.

Section two consists of the entire subtidal section of the river between the Damariscotta in town bridge and the Route 1 bridge. Red Beard Sponge (*Microciona prolifera*) and Red Chenille Alga (*Dasya bailloviana*) both occur here. Characteristic of southern waters, they are very rare this far north. This small area is one of only two known sites in Maine where the sponge occurs and it is the only known site in Maine of Red Chenille Alga.

### *Wildlife Habitats*

The Maine Department of Inland Fisheries and Wildlife (IF&W) is responsible for locating, evaluating, and mapping terrestrial wildlife habitat, such as **deer yards**, and significant **inland and coastal wetlands** through aerial photography and follow-up site visits. Maps are prepared for localities and ratings are given to each of the resources mapped.<sup>1</sup>

IF&W rates these habitats into four categories: 1—Low, 2—Moderate, 3—High, and 5—Indeterminate, when there is insufficient information to make a determination. Ratings of High and Moderate are considered "significant" and trigger the Natural Resource Protection Act, Title 38 &480. This legislation requires a DEP permit for certain activities on or near such significant wetlands.

IF&W is careful to point out that wetlands not identified or rated "Indeterminate" may have significant value to the community. "Indeterminate" signifies only that IF&W has not had an opportunity to check the vegetation, which is used to rate habitat value.<sup>2</sup>

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<sup>1</sup> *Conservation of Inland Fisheries and Wildlife Habitat*, Maine Department of Inland Fisheries and Wildlife, October 16, 1990 and associated map titled *DAMARISCOTTA*

<sup>2</sup> Phone Conversation with Gene Dumont, regional biologist with the Maine Department of Inland Fisheries and Wildlife



## **Wetlands**

Wetlands are defined as aquatic habitats such as fresh and saltwater marshes, bogs, wet meadows, seasonal pools, shallow lakes and ponds, wooded swamps, and tidal flats. Wetlands have many important functions in human and natural ecology, including:

- ◆ Coastal salt marshes and tidal flats, for example, are important habitats for many kinds of commonly sought shellfish and finfish.
- ◆ Wetlands are efficient water managers. They hold water and release it slowly, thus controlling flooding.
- ◆ Wetlands serve as recharge areas for groundwater.
- ◆ Wetlands are a filter for natural or human caused pollution

## **Deer wintering areas,**

Deer wintering areas or yards, are another category of habitat mapped and rated by IF&W that are noted below in discussion of Damariscotta's "natural resource areas." A primary behavioral mechanism causes deer to move to such traditional yards in winter in order to obtain shelter and improved mobility and thereby conserve energy.

## **Coastal Wildlife Concentration Areas,**

Another means IF&W uses to rate habitats is classification of certain locations as depending upon the abundance or diversity of wildlife they support or their importance to rare species. There are three levels within this classification: Class A—assigned to areas important on a national or state level because they have a very high species abundance or diversity; Class B—for areas that are important within a region of the Maine coast because they have high species abundance or diversity or are important to watch-listed species of special concern; Class C—assigned to areas of moderate diversity or abundance that may be important on a local level.

As indicated in the discussion below, Class A, the highest category, has been assigned to several areas within Damariscotta, specifically near Huston Cove and in Salt Bay. Most of the rest of the river's eastern shore is rated Class C.

## ***Existing Laws and Regulations***

Wetlands and Wildlife Habitats are regulated by DEP through The Natural Resource Protection Act, Title 38 § 480. The act requires a permit for activities on or near "significant" wetlands.

Coastal Wildlife Concentration Areas and deer yards (except in Land Use Regulation Commission territory) are not regulated at all. When associated with shoreline, Shoreland Zoning can however, regulate them

Towns may use the Shoreland Zoning Act to manage wetlands and wildlife habitat along the shores of the lakes, streams and salt water. The state requires that land within 250 feet of lakes, rivers and tidal shores and within 75 feet of streams be

zoned as shoreland. The extent of the controls is up to the municipality. If a town wishes, it could zone the entire 250 feet of shoreline or upland of wetlands as "Resource Protection," which would prohibit dwellings or septic systems. Currently, most areas are zoned as Limited Residential, which requires a minimum of 100-foot setback and 150 feet of frontage.

## **AGRICULTURE**

The only working agricultural land left in Damariscotta is in the Salt Bay Area. Approximately 45 acres of the DRA's Salt Bay Farm's hay fields are covered by an agricultural conservation easement held by the Maine Department of Agriculture. This easement requires that the fields will be used and maintained as productive agricultural lands. Other clusters of fields occur between the Salt Bay Farm and Oyster Creek and on and adjacent to the Round Top Center of the Arts. Currently hayed, these fields have been in continuous pasture, crop, or hay production for about two hundred years

Also, according to the Property Tax Division of the Maine Revenue Service, there were 45 acres of farmland registered in the Farm and Open Space Valuation Program in 1998. These fields are assessed at their farmland, rather than development value.

## **FORESTRY**

According to the same source, 1,234 acres of forest were registered in the Tree Growth Tax Program in 1998. Regional Forester Patty Cormier advises six forestry plans, accounting for 498 acres, were enrolled in the Forest Stewardship Program, sponsored by the Bureau of Forestry in the Department of Conservation.

## **NATURAL RESOURCE AREAS or MINI-ECOSYSTEMS**

The following describes the nine natural ecosystems within the boundaries of the Town of Damariscotta, as defined on an "Areas of Environmental Sensitivity" map prepared by the Maine Mapping Service in 1990.

### ***Salt Bay***

Salt Bay is a shallow, 540-acre, well-flushed estuarine embayment of the Damariscotta River.<sup>3</sup> It extends from the outlet of Damariscotta Lake in Damariscotta Mills to the Damariscotta/Newcastle Highway Bridge,

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<sup>3</sup> In 1999, the Damariscotta River Association commissioned ecological consultant Janet McMahon to draft, as a DRA internal management tool, a *Natural Resources Inventory and Management Plan* for the upper Damariscotta River and Salt Bay and adjacent lands that the DRA protects and helps steward. McMahon's inventory contains in-depth information concerning the natural, cultural, and archeological resources of the area. The document is due to be published in late spring 2000 and DRA has agreed to make a copy available to the Town Office, where it should be retained on file as an adjunct to this Comprehensive Plan. It will henceforth be referenced as McMahon.

Freshwater input into the estuary comes mainly from Damariscotta Lake. A dam at the head of the lake controls the volume of freshwater flow. Oyster Creek and smaller and intermittent streams around the approximately 6.3 miles of shoreline provide an additional amount of fresh water. At the head of tide, in Damariscotta Mills, a 50-foot falls provides power for a small electrical generating station as well as a migration passage for spawning alewives and other fish. State highways follow the southwestern and eastern shores of the bay and it is bounded by US Route 1 on the south. Salt Bay is a regional resource shared by the towns of Damariscotta, Nobleboro, and Newcastle.

McMahon describes the quiet shallow lagoon is as possibly being one of the largest natural salt ponds on the Maine coast. Here, warm summer temperatures, shallow, clear water, and a substrate of silt, clay and sand provide ideal habitat for extensive eel grass beds, which are among the largest in this part of Maine.

Eelgrass contributes in a variety of ways to the health and productivity of the Bay and Upper River; among other things, it provides shelter for juvenile fish, invertebrates, and food for resident and transient waterfowl.

Recognizing the bay as an exceptionally important habitat for many species of migratory and resident fish and birds, including Bald Eagles, the Maine Department of Inland Fisheries and Wildlife has classified its southern half, including all of the Damariscotta shore, as a Class A. Coastal Wildlife Concentration Area. IF&W points out that maintaining the existing distribution, diversity and abundance of Maine's coastal wildlife depends on the continued availability of sites like this as "minimally disturbed, biologically productive habitats."

The Department of Marine Resources (DMR) has been monitoring water quality at eight sites in the bay. According to Jan Barter, a biologist at DMR's Boothbay lab, water quality has been improving. The only discharge into the Bay now is the treated effluent from the municipal wastewater treatment plant in Damariscotta Mills.

In 1998, the Planning Alliance of the Damariscotta River Estuary (PADRE) received a 319 Grant from the EPA to study the sources and extent of non-point source pollution into the Bay and to evaluate the Bay's potential shellfish productivity. A clam survey was conducted in May 1999 with encouraging results that indicate an average potential production of 197 bushels per acre, which is above average. A sanitary survey of 150 properties and a sampling according to DMR protocol of 11 streams revealed no significant levels of coliform bacteria.

Twelve potential sources of pollution were identified. Four of these were malfunctioning septic systems, two within 500 feet of the Bay. Their owners have been contacted and steps are underway to eliminate these potential problems.

Oyster Creek, which drains an area of about six square miles, contributes a much smaller amount of fresh water to the estuary. Its two branches are not navigable above head of tide. The South Branch has its origins in an extensive wetland complex that lies about one mile east of Salt Bay.

### Unique, rare species

As noted earlier, Salt Bay is one of four significant breeding sites in Maine for the horseshoe crab and supports two species of algae that are rarely found this far north. Additional study is likely to reveal others. Bald Eagles nest nearby and are frequently seen visitors to the Bay and its shores.

The mixture of upland, wetland, and inter-tidal habitats are used by many other bird species. All told, 176 species have been documented in the Salt Bay Area. Seventy-nine of these breed here. (McMahon)

### Fish

Alewives, smelt, striped bass, and American eels are among the migratory fish of the Damariscotta estuary. Intensive harvesting methods, poor maintenance of the fishway, mortality in power station turbines, natural fluctuations, and, perhaps, other causes led to a dramatic reduction in the alewife catch from 1950 (when 1,800 bushels were harvested) to 1992 (when the catch was 303 bushels). A moratorium on fishing beginning in 1992 and other measures, such as seasonal shutdown of the power station, fish ladder restoration, and intensive monitoring of alewife numbers, have now helped the population to rebound to a 20-year high and commercial harvesting is again planned for 2001.

A study by S.R. Chapman documents streams along the Damariscotta that are potentially important spawning grounds for smelt. Four streams that feed in the Salt Bay, including Castner School Stream support breeding populations of smelt. The winter smelt fishery continues to thrive, although numbers have declined in the past several decades. (McMahon)

The potential for shellfish harvesting is thought to be significant. (See Marine Resource element of this Plan Supplement)

### Settlement Pattern

The Salt Bay today is a complex blend of settled land and productive wildlife habitat.

The abundant and varied natural resources of the Salt Bay have attracted and benefited people for millennia. For the Native Americans, the greatest attraction was the bay itself. Its warm nutrient-laden waters provided an extremely productive environment for fish, shellfish, waterfowl, and other animals. For the European settlers, the surrounding forests were mature and unbroken, offering an untapped supply of timber and plenty of game. The contours of the land were gentle and soils were deep, providing ground for pasture and cultivation, fishing camps and homes.

Evidence of past land use is everywhere—from shell heaps to stone walls passing through forests of pine and oak.

Agriculture also had a major effect on the wetlands of the Salt Bay area. Salt marshes were hayed and fresh water marshes were ditched and drained. Many small watercourses were dammed or diverted and at least one wetland along the South

Branch of Oyster Creek (Cran Meadow) was managed to produce cranberries when the Freeman (now DRA) Farm was in commercial operation.

The residential pattern was established in the late 1700's and continues today: Homes were built on the ridges with pasture in between. The pattern is readily apparent at the DRA Salt Bay Farm and Glidden Point, whose boundaries have remained essentially unchanged since the original land grants. (Above four paragraphs are all drawn from McMahon.).

### **Existing Protection Mechanisms**

**State Subdivision Law:** State Subdivision Statute 30-A MRSA § 4401 lists the Damariscotta River "from the Route 1 bridge in Damariscotta to the dam at Damariscotta Mills" as an "Outstanding River Segment".

*When lots in subdivision have frontage on an outstanding river segment, the proposed subdivision plan must require principal structures to have a combined lot shore frontage and setback from the normal high water mark of 500 feet.*

According to the **Damariscotta Land Use Ordinance**, this area is a Rural District, where the minimum lot size is 80,000 square feet, or about 2 acres.

Shoreland Zoning designates the 250 feet of shoreline area as Limited Residential, except where there are steep slopes greater than 20 percent. New residential structures have to be set back 100 feet, with a lot size of 30,000 square feet and a minimum shore frontage of 150 feet.

### ***Damariscotta River***

The second resource area is the segment of the river below the Damariscotta-Newcastle in Town Bridge. The tidal river south of the bridge is classified SB (Title 38, section 469). Class SB is the second highest classification. Water quality at the municipal park appears suitable for swimming. The river's Eastern Shore, from the Municipal Parking Lot to just north of Huston Cove is conditionally open for depuration shell fishing. The area known as Huston Cove, near the town's southern boundary, is closed because there are seven licensed overboard discharges. There may be more unlicensed seasonal discharges from Cottage Point.

IF&W classifies the eastern shore of the Damariscotta River, through the downtown area, as a Class C Coastal Wildlife Concentration Area, a category reserved for areas with moderate species abundance or diversity that are important on a local level. IF&W's highest classification, Class A, is assigned to Day's Cove and Huston Cove.

### **Settlement Pattern**

This area is densely settled. It includes downtown, the Miles Memorial Hospital complex and private homes in old New England tradition.

### **Existing Protection Mechanism**

*Damariscotta Land Use Ordinance* designates the downtown as C1 (Commercial) and the rest of the area between Bristol Road and the River, as a Residential District. Since public sewer and water serve the area, residential development is allowed on lots of 10,000 square feet (although there is very little space for new construction).

Most of the shoreline from Route 1 to the inlet that ends by Church Street and all of the shore south of Miles Memorial Hospital is banked by steep slopes. Most of it is zoned Resource Protection under Shoreland Zoning. New construction would have to be set back at least 250 feet from the River.

### ***Cran Meadow Brook and Wetlands***

There is an extensive network of brooks, streams, and wetlands running north to south along the east side of Route 1. Cran Meadow Brook runs under Route 1 about 1000 feet north of Belvedere Road and eventually supplies fresh water to the South Branch of Oyster Creek. There is a mapped wetland south of Knowlton Corner rated "Indeterminate".

This natural/wilderness wetland system covers about 400 acres. It is both an open space asset, and a natural limitation to residential development.

This area also contains a mapped deer wintering area rated "Indeterminate", located west of Standpipe Road and south of Back Meadow Road.

### **Settlement Pattern**

This area—bounded on the north by the Nobleboro town line, on the east by Back Meadow Road and on the south by Biscay Road—is sparsely settled. Residences and occasional home businesses are found along the roads.

### **Existing Protection Mechanism**

The area is designated a Rural District, where lot sizes are 80,000 square feet, or almost two acres.

Almost the entire brook is surrounded by wetlands. The 250 feet from the upland edge of these wetlands is designated a Limited Residential District, where new principal residences have to be 100 feet back from the upland wetland edge. There are some sections, especially on the east, bordering the deeryard, where steep slopes would justify establishing a Resource Protection District.

### ***Castner Brook***

*Castner Brook* starts in wetlands west of town and flows north into the River. IF&W has identified Wetland #071712 at the southern end of town, but has not assigned a rating to it. In the same vicinity, there is a deer yard of approximately 410 acres, which lies east of the brook and extends to Pine Ridge Road on the west. It is rated "Indeterminate".

**Settlement Pattern**

This area is bounded on the north by Biscay Road, on the east by the power line, on the west by School Street, and on the south by the Bristol town line. It is almost completely undeveloped.

**Existing Protection Mechanism**

Being in a Rural District, the lot sizes are 80,000 square feet. Most of the brook is designated a Stream Protection District, except for the southern end where 250 feet upland from the wetland is in Limited Residential. Structures here have to be 75 feet from the stream shoreline and 100 feet from the upland edge of wetlands.

***Back Meadow Brook***

Back Meadow Brook and associated wetlands run north from Paradise Pond. It is located between Back Meadow Road and Egypt Road. There are two "Indeterminate" wetlands; one called Back Meadow Brook Marsh at the northern end of town and the other on the northern shore of Muddy Pond.

There is also an "Indeterminate" deer yard, covering approximately 76 acres, between Little Pond and the brook.

**Settlement Pattern**

This area is sparsely settled. There are occasional residential structures along the road, but no subdivisions.

**Existing Protection Mechanism**

The area is in the Rural District, requiring a minimum lot size of 80,000 square feet. Seventy-five feet on either side of the brook is designated a Stream Protection District. This means that any new construction along the shore would require a permit and a setback of 75 feet from the upland edge of the stream.

### *DEP Lake Water Quality Evaluation Programs*

To understand issues and problems affecting Damariscotta's pond areas, it is useful to know something about the DEP's system for evaluating and rating lake and pond water quality.

DEP uses the terms "*Impaired or Non-Attainment*" to describe lakes or ponds that fail to attain federal and state statutory goals or designated uses. "*Threatened*" lakes or ponds are those that have experienced one algae bloom or whose "*Vulnerability Index*" indicates high sensitivity to degradation.

The **Vulnerability Index** measures lakes' sensitivity to additional phosphorus. It is based on a model which uses hydrological characteristics and the extent of development in a watershed to calculate the amount of phosphorus the lake can tolerate. Since the index is calculated for all lakes in Maine, it gives a valuable relative indication of how significant the future cumulative impact of development on Maine lakes may be.<sup>1</sup> This index is expressed as F, the lbs/ppb/year, or the amount of phosphorus that a lake can accept in one year. The lower the number, the greater the vulnerability.

#### Volunteer Monitoring Program

With DEP support, volunteers have been monitoring the quality of the lakes and ponds in Damariscotta off and on since 1978. They have been measuring dissolved oxygen and the transparency with a secchi disc— a frisbee-like disc with a black and white pattern attached to a rope marked off in meters. Secchi readings provide a measure of water clarity, which may be reduced by algae growth, zooplankton, natural water color, silt and sediment.

DEP issues reports on average, minimum and maximum secchi disc readings. Seven meters or higher is best, 4-7 meters is good and 4 meters or less is considered not very clear.

The Volunteer Monitoring Program also issues a summary the "Attainment Status" of all lakes. The Federal Clean Water Act and Maine's Classification System require that DEP report on lake water quality in terms of how well it meets the standards for various designated uses. For the sake of simplicity, the overall attainment is reported as FS (fully supporting designated uses), FT (fully supporting, designated uses but threatened), and PS (partially supporting designated uses).

### *Paradise or Muddy Pond (Local people call it Paradise, but USGS and IF&W call it Muddy)*

This is a shallow pond, with a mean depth of eight feet and a surface area of 150 acres, located south of Biscay Road between Lessner Road and the power line. The southern half of the Pond is really a large wetland. It is locally referred to as a "floating bog."

#### **Water Quality**

DEP's data is relatively current for Muddy Pond. It is not considered impaired because it "shows no or little dissolved oxygen depletion; therefore fish habitat has not been impacted and there is currently no potential for internal recycling of phosphorus due to dissolved oxygen depletion"<sup>4</sup>.

It is, however, on the Threatened List due to its Vulnerability Index, which indicates a low tolerance for phosphorus:

"Existing data suggest that the lake has moderate algal production. . . . (It) is highly colored with natural dissolved organic compounds; algal productivity may be somewhat limited as a result. . . . The data for Paradise [Muddy] P. indicate an improvement in water quality."

<sup>4</sup> DEP's MIDAS # 5708



*Vulnerability Index:* F value is 8.13.

*Volunteer Monitoring Program Summary Report:*

<u>Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Attainment</u>
3.5 m	3.2m	3.7m	FT fully supporting but threatened

### **Wetland and Wildlife Habitat**

While the USGS map clearly shows the wetland at the southern part of the pond, IF&W has not mapped it. There is a mapped wetland of "Indeterminate" value at the northern end of the pond.

### **Settlement Pattern**

The shoreline seems to be mostly undeveloped. There appears to be one cluster of about ten cottages on the southwest shore.

### **Existing Protection Mechanism**

The *Damariscotta Land Use Ordinance* designates the area as Rural.

Two hundred and fifty feet from the shore of the pond and from the upland edge of the wetland is in Shoreland Zoning. It is mostly Limited Residential except on the western shore, which has some steep slopes and is therefore designated a Resource Protection Zone.

### **Issues to discuss**

This is a small shallow pond, which is in relatively good condition now. While the bog itself could never be developed, there is an opportunity to guide the density of future development.

This is a "threatened" water body, so it would seem a phosphorus management program would be advisable.

### ***Little Pond***

The protection of Little Pond is clearly a high priority not only for Damariscotta but also Newcastle. It is the source of drinking waters for about 1,500 customers, including residents, the elderly, schools, hospitals and restaurants. The Maine Water Company, former owner of the water system, applied for and received a waiver from the Department of Human Services from the requirement to install a one million dollar filtration plant. This waiver was granted on the basis of a *Watershed Protection Program for the Little Pond Watershed*, submitted by Jeffrey McNelly in 1991.

The following information is quoted from that report:

Hydrologic and Morphometric Data:

(There are two intermittent streams, one entering at the north end, the other at the south.)

Surface Area	69.2 acres
Maximum depth	45 feet
Mean depth	19 feet
Tributary A Drainage	198 acres
Tributary B drainage	13 acres
Direct Drainage	141 acres
Total size of the watershed is 435 acres	

Water Quality, History

*Little Pond has been used as a water supply since 1897. Water quality was reportedly of high quality until the late 1960's, when problems associated with blue-green algae blooms developed.*

*In 1976 and 1977, the Maine DEP conducted research at Little Pond in an effort to improve the quality of the water source. Although algae blooms were occurring, the most serious problem at that time was attributable to an abundant population of zooplankton. In an effort to control this population the DEP stocked adult alewives (which were ripe for spawning) into the pond. It was hoped that . . . through foraging (they) would significantly reduce the problematic zooplankton population.*

*The project was successful in reducing the population. Improved water quality was evidenced by the fact that daily chlorine usage was reduced from 12-18 pounds per day to 5-7 pounds.<sup>5</sup>*

**DEP's Water Quality Data**

The data in DEP's file on Little Pond is a little uneven. While there is secchi disc data from the volunteer monitoring program, DEP does not consider the testing that the Great Salt Bay Sanitary District has conducted in the last 10 years. That testing indicates zero turbidity and bacteria. The assessments are based on dissolved oxygen, chlorophyll, and phosphorus between 1974 and 1988, before the quality of the lake had significantly improved. The sect disc readings are much higher, in fact the highest. The pond is the clearest of all the ponds in Damariscotta.

The following information is from the *1996 Maine Water Quality Assessment Report*.<sup>6</sup> Based on old data, Little Pond is on DEP's Impaired, Non-Attainment, and list. The basis was the low dissolved oxygen found at depth greater than five feet in samples taken in August and September 1977 and 1978 (1978 being the latest dissolved oxygen data). "LITTLE P. shows dissolved oxygen depletion in the bottom water to

<sup>5</sup> *Watershed Protection Program for Little Pond Watershed*, Jeffrey L. McNelly, September, 1991

<sup>6</sup> *The Quality of Maine Waters*, a Condensed version of the *1996 Maine Water Quality Assessment*, DEPLW97-11; also phone conversation with Linda Bacon at DEP Division of Environmental Assessment

levels which are considered to be medium risk for the development of a significant phosphorus internal recycling problem.”<sup>7</sup> (The report does not include other data, nor does DEP have trend data. They report one known algae bloom.)

While DEP does not have enough data to calculate the Trophic Status Index, and the MIDAS data sheet summary uses 1994 data, sampling data from 1997 and 1998 certainly seem to be showing a trend toward improved water quality:

In 1977-78, there were 17 oxygen samples with lower than 1ppm dissolved oxygen. The low levels started showing up at 8 meters. In 1997-98, there were only 3 readings below 1 PPM and the low readings started at 10 meters. The 1998 reading at 10 meters was 2.0

Secchi disc readings also show an improvement. In 1977, 1978 and 1981, the mean readings were 3.3, 4.5, and 7.4 respectively. In 1988, 1997 and 1998, the mean secchi disc readings were 7.1, 7.5, and 6.7.

#### **Vulnerability Index: F- 4.80**

##### **Wildlife Habitat**

There is an “Indeterminate” value wetland, which crosses Back Meadow Road in the northern section of the Little Pond Watershed.

There is also a mapped “Indeterminate” value deer yard of about seven acres on the southwest shore of Little Pond.

##### **Settlement patterns**

The area is sparsely settled, although there are a few cottages. The Great Salt Bay Sanitary district now owns 358 acres of woodland in the watershed and has managed the forests according to a Forestry Plan prepared for it by professional foresters.

##### **Existing Protection Mechanism**

The area is in the Rural District. The shoreline is steeply sloped; therefore, a large part of it is in Resource Protection. This means that any new structure would have to be more than 250 feet back from the shoreline. The Salt Bay Sanitary District recognizes that the best means of protecting the water supply is to control land use in the watershed. To that end, the Salt Bay Sanitary District has recently acquired another 180 acres that contain 5 man-made ponds, a potential source of sediment contamination.

##### **Issues to Be Discussed**

The recovery of the water quality, probably attributable to closing of the dump as well as to lake restoration efforts, is remarkable. However, the pond’s vulnerability is indisputable.

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<sup>7</sup> DEP MIDAS #5706 *Report for Little Pond*

The protection of this pond as the source of the public water supply is essential. (See also the Public Facilities and Services element of this revised Plan.) This is a situation where management to prevent water quality deterioration is a matter of health and significant cost avoidance. If the quality deteriorates even modestly, more chlorine has to be used and, even if low amounts of E coli and turbidity are found, DHS and EPA could withdraw the waiver and require filtration, which currently costs in the order of 800,000 to 1,000,000 dollars.

Careful thought needs to be given to the intensity and type of future development activity that this watershed can tolerate. A phosphorus loading evaluation seems advisable.

### ***Pemaquid Pond***

This is a large lake, with a surface of 1,441 acres and a mean depth of 20 feet. It is a regional resource, almost all of whose western shore is in Damariscotta. Its northern shore is in Nobleboro and its eastern Shore in Waldoboro and Bremen.

#### **DEP Data**

Pemaquid Pond is on DEP's **Impaired, Non-Attainment** list

It is impaired for cold water and warm water fisheries. The reason for the non-attainment status is organic enrichment and low dissolved oxygen. The relative magnitude of the problem is HIGH and, according to the DEP, the source of the problem is shoreline development.

DEP has two sampling stations on the pond, at the north and south ends.

*Station 1:* DEP's Data Sheet shows Secchi Disc readings every year from 1975-98. The mean secchi disc reading has hovered around 4.4 to 5.7 meters. It was 5.7 meters in 1992, at its highest. It reached 4.7 in 1995 and 4.6 in 1998. Dissolved oxygen was not measured every year. Dissolved oxygen levels seem to have improved between 1991 and 1997. It was .6ppm at 11 meters in 1991 and 1.6 ppm in 1997. In 1991, the ppm dropped to .2 at 17 meters: it was 2.4 ppm at the same depth in 1997.

*Station 2:* Secchi disc measurements were not taken every year and there was a gap between 1992 and 1997. The reading did drop, although perhaps not significantly. It was 4.8 meters in 1992 and 4.0 in 1997 and 3.8 in 1998. Dissolved oxygen was not measured during 1991-97. In 1991, the oxygen level dropped below 1ppm at 8 meters. In 1997, the drop in dissolved oxygen occurred at 6 meters. If there is a trend, it does seem to be a slightly deteriorating one.

From the MIDAS fact sheet:

*Pemaquid P., MIDAS #5704, shows dissolved oxygen depletion in the bottom water to levels which are considered having a severe reduction in cold water fish habitat and to levels which are considered to be high risk for the development of a*

*significant phosphorus internal recycling problem, if the problem doesn't exist already . . . (The water) is highly colored with natural dissolved organic compounds. . . Water quality appears to be stable.*

The Vulnerability Index, or tolerance for phosphorus, is the highest of all the ponds in Town— 26.15 lbs/ppb/year.

### *Volunteer Monitoring Program Summary Report*

Station	Transparency			Attainment status
	Average	Minimum	Maximum	
Station 1	4.6	3.8	5.5	FT-Fully supporting , Threatened
Station 2	3.8	3.3	4.3	FT-fully supporting, threatened

### **Wetlands, Wildlife Habitat**

The Maine Fish and Wildlife Department has identified and rated a wetland between Pemaquid Pond and Biscay Pond as being of “moderate” value.

### **Settlement Pattern**

The eastern shore of Pemaquid Pond has the most highly concentrated development of the entire watershed. Many of the older cottages are very close to the shoreline and a number are being converted to year-round use. The campground adds large numbers of people to the watershed in the summer.

### **Existing Protection Mechanism**

The “moderate” rating of the wetland between Pemaquid Pond and Biscay Pond triggers the Natural Resource Protection Act. A permit is required from the DEP for any new land use activity in or near the wetland.

The *Damariscotta Land Use Ordinance* designates the whole area Rural

In accordance with Shoreland Zoning, the shore of the entire pond is zoned Limited Residential as far as the steep slopes below the campground, where it is zoned Resource Protection.

### **Issue to Discuss**

According to DEP, Pemaquid Pond is “Impaired.” This is a call for careful study and a well-reasoned program of action. There are many examples in the state where

people have rallied, learned and understood the extent of the problem and then, through concerted citizen action, have brought a lake back.

DEP offers assistance to local groups wishing to be proactive in protecting their lakes. Building on the citizen-monitoring program conducted by the Pemaquid Watershed Association, the DEP could assist the town and the Association in developing a phosphorus control program. Such programs aim at preventing eutrophication of Maine lakes by ensuring that development within the watershed, not just the Shoreland Zone, does not generate more phosphorus than the lake can handle.

*Phosphorus Control in Lake Watershed: A Technical Guide To Evaluating New Development* is a handbook that contains all the information needed to evaluate the impact of development on lake water quality.

This requires the commitment of the towns around Pemaquid Pond and the willingness to do the work needed to build political support for controls of development, which will have to be supported by the citizens in each of the towns.

The existence of the Pemaquid Watershed Association is an important asset. It can serve as the organizational base for such a program.

### ***Biscay Pond***

This pond is smaller than Pemaquid Pond but, nonetheless, is of regional significance; it is shared with Bremen and Bristol. The pond has a surface area of ~360 acres and mean depth 39 feet. Comprehensive data were gathered up until 1990 and Secchi Disc readings in 1996.

### **DEP Water Quality**

Biscay Pond is also on DEP's Impaired, Non-Attainment list. The reasons for the non-attainment status are organic enrichment, low dissolved oxygen, and that the oxygen level is too low to support cold or warm water fisheries. DEP considers the relative magnitude of the problem as high and its source to be shoreline development.

The MIDAS fact sheet for Biscay Pond, MIDAS #5710, reads:

*Biscay Pond shows dissolved oxygen depletion in the bottom waters to levels which are considered as having a severe reduction in cold water fish habitat, but pose no immediate risk for the development of a significant phosphorus internal recycling problem. . . . Biscay Pond has not had adequate data collected to calculate TSI's. Existing data suggests that the lake has moderate algal production. . . . Water quality appears to be stable. Any annual or seasonal fluctuations are probably normal.*

The Vulnerability Index, is 18.65 lbs/ppb/year.

*Volunteer Monitoring Program Summary Report*

Transparency			Attainment status
Average	Minimum	Maximum	
4.9	4.0	5.8	PS-partially supporting

**Wetland, Wildlife Habitat**

There is a ~17 acre wetland, rated “Indeterminate” at the inlet of Biscay Pond, the Biscay Stream Area between Twin Cove Road and the intersection of Lessner and Biscay roads. According to residents in the area, the stream is an important nesting and spawning area, a hatchery, and nursery for the entire food chain inhabiting the ponds.

**Settlement Pattern**

There is shoreline development all along the western shore: however, it is not as dense as the development on Pemaquid Pond. There is still quite a bit of building opportunity and activity on the shores in Damariscotta.

**Existing Protection Mechanism**

The Damariscotta Land Use Ordinance designates the whole area Rural.

The northern half of the shoreline in Damariscotta is steep slope and is therefore in Resource Protection. The rest of the shoreline to the Bristol line is zoned Limited Residential, which allows cottages with a 100-foot set back.

**Issues to Discuss**

While settlement is not as visibly dense as on Pemaquid Pond, Biscay Pond is Impaired. Interestingly enough, this is the only lake in Damariscotta with an attainment status of “Partially Supporting”; that is, it partially supports designated uses and aquatic life.

Since there is still opportunity for new construction, a phosphorus management program would be advisable. This needs to be a regional effort with Bremen and Bristol.

## Summary of Pond Water Quality Data

Lake/Pond	Impairment	Vulnerability Index F value	Transparency Ave. in meters	Other
Paradise/Muddy	Threatened Fully attaining, Threatened	8.13lbs/ppb/year	3.5	Highly colored by natural dissolved organic compounds.
Little Pond	Impaired, Non-attainment  FT	4.80lbs/ppb/year	Continued through 1998  6.7	Meeting high EPA standards
Pemaquid Pond	FT	26.15 lbs/ppb/year	3.8	At , high risk for phosphorus recycling problem

## ANALYSIS

Damariscotta is blessed with an abundance of water resources. While the water quality of Salt Bay and the Damariscotta River appear to be improving, DEP's data undeniably indicates that the ponds are either threatened or already on DEP's Impaired or Non-Attainment lists.

Town citizens need to determine how important these ponds are to them. Little Pond is clearly important because it is the source of drinking water. Pemaquid and Biscay Ponds are recreational resources.

If there is a commitment to protecting the lakes and the other sensitive natural areas, there are many tools available for preventing further degradation of these natural resources.

These tools include, but are not limited to, purchase of land or easements, contractual agreements between landowners, deed restrictions, septic system maintenance, a phosphorus management program, which may include an ordinance specifically tailored to the protection of the ponds.

Additionally, we will look at our Shoreland Zoning and, if possible, zone more fragile, vulnerable shorefronts into Resource Protection. We will consider establishing a Natural Resource Protection Area for the particularly vulnerable or threatened ecosystems.



## POLICY AND IMPLEMENTATION STRATEGIES

### *Rare and Exemplary Natural Features*

#### **Issues and Implications**

There are an extraordinary number of marine and botanical species in Damariscotta. Some of these are protected by landowner agreements with the Critical Areas Program. Most are not.

Providing information about the specific location of these endangered or threatened species is a dilemma. On the one hand, if people know where they are they may pick them, on the other hand if they are not aware of their existence they can't be expected to protect them.

DEP's laws do require identification of any such specie in the permit process, if found provisions must be made to protect them.

The greatest threat to rare plans is unintentional destruction through building (which may not require anything more than a local building permit), picking, or changes in water distribution and quality through any number of activities, including forestry, road building or residential and commercial construction.

#### **Policy**

#### **Increase the effort to protect rare, threatened or endangered species**

##### **Implementation strategies:**

1. Encourage the Pemaquid Watershed Association to hold workshops , in cooperation with DEP, to teach the public and lake property owners how to identify these plants, their value and how to protect them.
2. Work with the Planning Board to check local ordinances and incorporate measures to assure the protection of these species, using the State Site Law as a model.
3. Assure that pictures and location maps are available to the Planning Board for use when reviewing subdivisions or developments under Shoreland Zoning or the Site Review Ordinance.
4. Explore interest in creating a Town Conservation Commission, whose responsibility it could be to assure the protection of these rare, threatened or endangered species.

### *Wetlands, Tidal and Freshwater, Wildlife Habitat and The Salt Bay*

#### **Issues and Implications**

Damariscotta is surrounded and laced throughout by wetlands, the largest and most significant of which is the Salt Bay. In fact, we suspect there are more wetlands in Damariscotta than suitable land for human habitation.

The Eastern Shore of the Damariscotta River and the Salt Bay are characterized as a Class A Coastal Wildlife Concentration Area because it supports a concentration of state and /or nationally significant species. The bay is also feeding and flight habitat for at least one family of eagles, which nest in Damariscotta Mills as well as many other resident and migrating birds. It also supports a species of algae and a sponge, rarely found this far north. It has extensive eelgrass meadow and an extraordinary assortment of plants, mostly associated with wetlands

*To ensure the long term health of its many natural habitats, it is important to look for ways to connect the Salt Bay Conservation Area to other tracts of undeveloped land. . . Although the high natural productivity of Salt Bay endures even after a long and intensive history of human use, the ecology of the upper estuary is also vulnerable to the impacts of increased human use and development. (McMahon)*

#### **Policy:**

**Encourage efforts to protect environmentally sensitive areas such as wetlands, streams, and the Salt Bay**

#### **Implementation Strategies**

1. Request I F& W to identify and rate the many "indeterminate" natural areas.
2. Examine the value and importance to the community of each significant wetland, marshy bog area.
3. Explore existing shoreland ordinances to assure that they are adequate to protect the wetlands and streams identified as valuable.
4. The Conservation Commission shall work with the Lakes Associations and volunteers in the community to eradicate invasive species such as *Loosestrife*

#### ***Little Pond***

##### **Issues and Implications**

The protection of Little Pond is clearly a high priority not only for Damariscotta but also Newcastle. It is the source of drinking waters for about 1,500 residents in the two towns, and for schools, health care facilities, and restaurants.

Because it has been the source of drinking water since 1897, water quality has been monitored. DEP and the Consumer Water Company were quite concerned when it experienced algae blooms in the late 1970's. DEP was successful in reducing the abundant population of zooplankton.

Documented evidence indicates that water quality has been steadily improving since the algae bloom in 1977. Consumer Water Company applied for and was granted a waiver from filtration requirements based on results of monthly tests for E coli and turbidity in 1991 This monitoring is continuous. Water quality meets all DEP and EPA standards. The water quality is suitable for drinking after chlorination—required of all surface water sources, regardless of quality.

The recovery of water quality, probably attributable to closing of the dump as well as to Lake Restoration effort, is remarkable. However, the vulnerability of the pond is indisputable; it is still on DEP's Impaired, a Non-Attainment list. This is due to a combination of the pond's physical characteristics and its low tolerance for phosphorus.

The protection of this pond, source of the public water supply, is essential. Management to prevent water quality deterioration is a matter of health and significant cost avoidance. If the sampling shows modest increase in E coli bacteria or turbidity, EPA and DHS could withdraw the waiver and require filtration, which could cost between .5 million to 1.5 million dollars.

Careful thought needs to be given to the intensity and type of development that this watershed can tolerate. The watershed of Little Pond is 435 acres. Salt Bay Sanitary District already owns and therefore can manage to assure high water quality in 313 acres or 70 percent of the watershed. Purchasing more land is rather unlikely because of cost and because it is privately owned. There are some homes and the possibility of more being built.

The Great Salt Bay Sanitary District does not have jurisdiction over land use on private property within the watershed. The Town has legal authority. It will take a cooperative effort between the Town and Great Salt Bay Sanitary District to control additional development in the watershed.

### **Policy**

**The Town recognizes its responsibility to protect the water supply for 1,500 people in the towns of Damariscotta and Newcastle. The Town should work with the Great Salt Bay Sanitary District to develop a management plan and associated ordinances to assure that the high water quality of Little Pond is maintained.**

### **Implementation Strategies**

1. Work with the Salt Bay Sanitary District to develop an appropriate management plan for the Little Pond watershed.
2. Amend the land use ordinance to include performance standards necessary to protect the water supply.

### ***Pemaquid and Biscay Ponds***

#### **Issues and Implications**

These large ponds of regional significance are hydrologically connected. Both are valued recreational resources for this and neighboring communities.

Both ponds are on DEP's Impaired, Non-Attainment list. Both are threatened by shoreland development.

There are examples in Maine of lakes as or more impaired where residents have taken effective cooperative action to turn around the deteriorating condition of the lake.

Biscay Pond has more undeveloped land than Pemaquid Pond, but there is still time to consider any number of tools to prevent additional phosphorus or nutrients from feeding the lake.

### **Policy**

**The Town of Damariscotta recognizes that Pemaquid and Biscay Ponds are important recreational resources and that the accelerating deterioration of water quality appears to be human caused.**

### **Implementation Strategies**

1. Organize a conference with the Pemaquid Lake Watershed Association , Waldoboro, Noblboro, Bremen and Bristol , DEP and members of other lake associations where lake restoration efforts have been successful to discuss the data and management tools available to prevent further water quality degradation).
2. Revise the Land Use Ordinance as necessary to protect the lake.

## MARINE RESOURCES

### STATE GOAL

TO PROTECT THE STATE'S MARINE RESOURCES INDUSTRY, PORTS, AND HARBORS FROM INCOMPATIBLE DEVELOPMENT AND TO PROMOTE ACCESS TO THE SHORE FOR COMMERCIAL FISHERMEN AND THE PUBLIC.

### INTRODUCTION

*"Damariscotta is an Indian name which is usually translated as the place of abundance of fishes"*<sup>1</sup>

The Damariscotta River from Salt Bay to the ocean at Boothbay and South Bristol is a magnificent saltwater estuary, a tidal river that unites and defines the area. Historically it has been uniquely endowed with both finfish—such as the alewives from which it derives its name—and shellfish. The massive numbers of oysters that contributed to the ancient middens at the mouth of Salt Bay are gone now. Clam-flats, however, provide a living to a sizeable contingent of diggers even though point-source pollution in Damariscotta has forced the continued closure of several high-potential harvesting areas. In Damariscotta, the River also supports several shellfish aquaculture operations.

The development pressure of the 1980's, the statewide Growth Management Act, and renewed local comprehensive planning efforts have heightened an awareness of the value of the River as a regional resource. This has led to increased discussion and cooperation among towns, and at the non-governmental level, of ways and means to best protect, and promote the River's abundant resources.

In 1992, with a grant from the National Oceanic and Atmospheric Administration, the Maine State Coastal Program brought together representatives of the seven towns on the river, local land trusts, individuals who relied on the river for their livelihood, and other interested persons to form a steering committee of the Damariscotta River Estuary Project (DREP). An intense effort of public involvement and education ensued, beginning in 1993. Planning papers were prepared, issues and problems were identified and discussed, natural resource and land use characterizations and economic profiles for the estuary watershed were researched and written, and special projects were undertaken.

The final product of this process was a comprehensive "Damariscotta River Estuary Management Plan," henceforth referred to as DREMP. Much of the information included in this section is drawn from this plan and the research on which it is based. Another product of the Estuary Project was establishment of the Planning Alliance of the Damariscotta River Estuary (PADRE) as successor to the DREP Steering Committee. Comprising representatives of the seven towns, PADRE continues to seek cooperative solutions to common problems and concerns relating to the River.

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<sup>1</sup> Dow, George, *Those Beautiful Alewives at Damariscotta Mills*, Lincoln County News, June 21, 1979

## FISHERIES

### Shellfish

#### *History*

The number of documented shell middens in the region indicates that this area once supported a highly productive shellfishery.<sup>9</sup> These sites are archeological evidence of human occupations at least 3,200 years ago. Some of them are larger than 1,000 cubic yards. Since over 90 percent of the volume of some of these sites are soft-shell clam shells, it appears that clams were an important part of the diet of prehistoric peoples in the area.

Sam Chapman's paper discusses the clam productivity history of the entire River. He says, that "Historically, on the Damariscotta, clams have been dug from flats above Fort Island narrows up river to the town of Damariscotta, with even a limited harvesting in Great Salt Bay."

*"Great Salt Bay was pre-historically an enormously productive fishery, as attested by the oyster shell middens at its entrance. These shell heaps overwhelmingly comprise oyster shells, but also contain a smattering of quahogs and soft-shell clam shells. They were accumulated over a period ranging roughly from 400 BC to 1000 AD. Since then, oysters apparently have occurred only in small isolated accumulations (for instance in Oyster Creek, as recently as the early part of this century) but are gone now."*<sup>10</sup>

Regional Marine Biologist Ron Aho, thinks<sup>11</sup> that a proliferation of saw mills around Damariscotta Mills and sediment from harvesting have changed the favorable substrate for oysters. Pete Noes adds that the oysters essentially disappeared and the enormous oyster fishery ended some 500-600 years before European colonists introduced mills and agriculture, which therefore could not have accounted for their disappearance.

The rise in sea level, which lowered water temperature, raised salinity, and created conditions for introduction of the oyster's principal predator, the oyster drill, is the probable reason given for the demise of the oyster beds. The soft (silted) bottom, or, more accurately, the absence of a firm substrate necessary for the survival of seed oysters is sometimes cited as an additional reason oysters have not returned.<sup>3</sup>

#### *Shellfish Data*

Until the spring of 1999, when PADRE sponsored a Salt Bay soft-shell clam assessment, the most recent inventory conducted by the Maine Department of

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<sup>9</sup> The information for this section was extracted from a paper "Clams on the Damariscotta River written by Sam Chapman, an area resident and fisheries consultant who contributed a paper to the Damariscotta River Estuary Projects. In 1995

<sup>10</sup> from comments on the first draft of this paper submitted by Pete Noyes, who represented the Damariscotta River Association on the Estuary Project Steering Committee

<sup>11</sup> Phone Conversation with Ron Aho, 3/16/98

Marine Resources was in 1982. At that time, two productive areas listed were 17.5 acres of Huston Cove and 11.4 acres of flats north of the Bristol town line.

These data are too old to be valuable, but local harvesters are looking forward with great enthusiasm to opening of Huston Cove because they estimate there is at least \$.5 million worth of shellfish there. In fact, the Town has received Small Community Grant assistance from DEP to build or repair formerly licensed but now illegal or malfunctioning individual waste discharge systems.

The Salt Bay is an area that has been thought to have great potential. The results of the survey conducted by Ron Aho, Stephanie Watson (PADRE) and four other diggers is that there are clams in Salt Bay:

*The average production of the area is quite high (197 bu/acre). While the sampled clams were large and . . . probably an old population (from not being harvested) . . . there were small (5-10mm clams in the water visible as they were borne along the wind driven current . . . These most probably represent clams (spat) that were produced last year.*<sup>12</sup>

#### ***Other Shellfish Areas***

Day's Cove, south of downtown and close to the hospital has been mentioned, but local harvesters do not think it worth exploring because the flat is all very hard mud. There is an area behind the landing off the downtown area (the USGS calls it Norris Point) that harvesters think would be productive, but even though the area is sewered there would be urban runoff to contend with.

#### ***Opening and Closing of Shellfish Beds***

Shellfish beds are closed for harvesting when:

- ◆ The area is subject to human and animal fecal matter in amounts that in the judgment of the DMR may present an actual or potential hazard to the public health.<sup>13</sup> In Maine, DMR inspects the shore in a sanitary survey. If there is any sanitary waste discharge, DMR has to close the area because, even if the discharge is treated, they cannot be sure of the consistency of the quality of the discharge.
- ◆ An area can be opened when it meets the prescribed standards upon sampling according to protocol set out by FDA.

The river in Damariscotta, up to Glidden Point, is conditionally open. Some areas are open only if the shellfish are processed through a depuration plant. Day's Cove is closed because of the sewage treatment plant outfall. Hustons Cove is closed because of individual licensed overboard discharges

<sup>12</sup> Ron Aho Salt Bay Clam Survey, May 21, 1999.

<sup>13</sup> National Shellfish Sanitation Program, US Food and Drug Administration, 1990

DMR has routine monitoring stations in Salt Bay. Conversation with Jan Barter from DMR reveals that Salt Bay is not heavily polluted. Tests near Damariscotta Lake do not reveal a great deal of pollution. There are no private licensed overboard discharges. The only discharge is the treatment plant at Damariscotta Mills on the west shore.

### *Sources of Pollution*

FDA rules prohibit harvesting of shellfish in areas with overboard discharging systems, even if they are licensed and properly functioning.

There has been much attention paid to the Huston Cove area. There are seven licensed overboard discharges at Cottage Point. Discussions have begun with DEP about seeking available support for replacing malfunctioning systems and overboard discharge systems. Level of funding support depends on the income of the residents.

Heather Leslie, an AmeriCorps Volunteer assigned to PADRE, coordinated 16 volunteers under the supervision of DMR in a sanitary survey of Salt Bay in June 1998. One hundred and fifty properties within 500 feet of the Bay were surveyed and landowners interviewed (some of these properties were probably in Newcastle or Nobleboro).

Eleven Streams were sampled according to DMR protocol. None of the samples had "most probable numbers" of fecal coliform bacteria above 43.

### *Existing Management*

The Towns of Newcastle, Edgecomb, Boothbay, Boothbay Harbor, and Damariscotta have jointly adopted a Shellfish Conservation Ordinance.

The Ordinance is a reciprocal agreement among the five towns, which allows for digging in any of the five towns. The purpose of the ordinance is "to establish a shellfish conservation program which will insure the protection and optimum utilization of shellfish resources within the limits of these municipalities". The means to accomplish these goals include:

- Establishing a representative shellfish Conservation Commission
- Surveying each clam producing area at least once every three years
- Limiting the number of diggers by rationing the licenses, and holding a lottery for unclaimed numbers.
- Establishing a minimum legal size of soft shell clams

There are some provisions addressing potential access conflicts. These are discussed below under "Access".

### *Analysis*

Until the recent clam survey of the Eastern Shore of Salt Bay, there was much speculation on the potential value of the Bay for shellfish. The results confirm that there is potential value. The following rough calculation is intended to give an



estimate: The report states that the average production of the Eastern Shore is 197 bu/acre. Sam Chapman used 70 acres, we will use 50 at the average price of \$65 per bushel, and the value would be \$640,250 per year.

We do not have recent figures on Huston Cove. There are about 40 acres. If we use the estimates of Ron Aho and commercial diggers of 197 bushels per acre that area has a potential of \$512,000, this agrees with figures being talked about.

There are some problems with the functioning of the Five-Town Shellfish Ordinance. It has been difficult to retain staff, so the enforcement is very weak. Five-town shellfish commissions are rare. Most shellfish ordinances cover one or two towns. There are problems with a diverse group trying to cover a wide area. One reason enforcement is so difficult might be that most harvesters in Boothbay, Boothbay Harbor and Edgecomb may not be committed to conservation in the upper River.

As the opening of the Salt Bay becomes more likely, as DMR's Hal Winters advises, there will have to be tight management of that resource.

#### Shellfish Aquaculture

As of June 1988, there were aquaculture operations or leases along the entire River, three in Damariscotta.

- One tract of two acres of American oysters, European oysters and surf clams, just south of Hog island
- Two tracts of two acres of American oysters and European oysters in Huston Cove, adjacent to Goose Ledge
- The third is one tract of five acres for cultivating quahogs, European, and American oysters, and Atlantic scallops. This operation is located in Salt Bay, just north of the Route 1 bridge.

Based on conversations with two of the three aquaculturists, aquaculture can be conducted in the middle of the river, where DMR does not find the bacteria, which causes closures along the shore.

Licenses are issued and operations are monitored by DMR. (12 MRSA Sec 6072) There is a required public hearing. Personal notice of the hearing must be given to the riparian landowners, the licensee and municipal officers. The criteria for granting of a license include:

- 1) It will not interfere with navigation (which is why the US Corps of Engineers is brought into these hearings).
- 2) It will not interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in an area.
- 3) It will not interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

The 119<sup>th</sup> Legislature recently passed a new law that gives jurisdiction to towns, jointly with the State, to issue licenses and enforce the provisions of the license for aquaculture within the intertidal zone. Only towns that have a shellfish ordinance have this authority.

### *Other Fisheries*

**Lobsters**—Most of the commercial fisheries for lobster flourish in the lower segment of the river. A few skiffs use the public landing at Riverside Park. Lobster fishing however is not significant in the upper Damariscotta River, above Glidden Ledges.

**Smelts**—According to the DREMP, a winter-smelt fishery thrives in Salt Bay each winter. A study by S.R. Chapman documents streams along the Damariscotta that are important potential spawning grounds for smelt. Four Streams that feed into the Upper River and Salt Bay, including Castner School Stream, support breeding populations of smelt.

As the shanties at the northern end of the bay testify, the winter-smelt fishery continues to thrive, although the smelt runs appear to be declining. Reasons cited in the DREMP include changes in water temperature, overfishing, acid rainfall affecting egg hatch, and disturbance of the habitat. A survey of smelt egg set found considerable evidence that modification of the streambeds by harvesters, who often build low rock dams, reduce the spawning success of the fish.

**Elvers**—tiny glass eels two to three inches in length and the diameter of a pencil lead are found in the Bay and in other sections of the River. These fish spawn out at sea and return to any freshwater stream. They are harvested mid-April to early June and sold in Europe and Asia. Lever nets are restricted to the Bay side of the Railroad Bridge in Damariscotta Mills.

**Alewives**—Alewives have been harvested in the upper river and Salt Bay since prehistoric times, as indicated by the discovery of alewife bones in the ancient oyster shell heaps. A law passed by the government of Massachusetts in 1807 regulates the fishery. This legislation called for construction of a fish ladder, establishment of a joint Newcastle-Nobleboro alewife committee to regulate the fishery, divided earnings from annual harvests between the two towns, and decreed that a portion of each year's catch be apportioned free of charge to the towns' widows and the poor. The fish ladder is, in fact, in Nobleboro, and the town of Damariscotta (though once a part of Nobleboro) is involved.

As a conservation measure, no fish have been harvested for the past eight years.

**Worms**—Wormers are nomadic, so it is very hard to estimate how many wormers there are out of Damariscotta. They sell to 3-4 large wholesalers along the coast. Harvesting more than 125 worms per tide requires a license. The only restriction on a license is a prohibition on Sunday. Hal Winters of DMR says that, per pound, worms are the most valuable resource we have. Wormers compete with the same resource areas as shellfish harvesters. While there are no laws to manage the

potential conflict, agreements should be attempted between local fishermen and wormers.

**Crabs**—there is even less information on crabs. Rumor has it that the industry is in severe decline. Some attribute this to the invasion of the green crab, which apparently consumes all shellfish.

## **PORTS AND HARBORS**

### **Ports, Harbors, Docks, Marinas**

Good harbors are a finite resource. Of the 7,600 acres of estuary surface area, relatively few acres provide the blend of shelter, depth, and access to shore side services essential to a good harbor.

Eighty years ago, boats of all sizes, from schooners to dories, plied the river. A ferry steamer picked up summer visitors, who arrived by train in Newcastle, and dropped them off at vacation destinations along the river. This ended with the ascendancy of the automobile. Boat use along the river is again on the rise as recreational boaters, crowded out of harbors to the south, seek anchorage, and more harvesters and sea-farmers work the estuary waters and flats.

The DREMP mentions three landing sites in Damariscotta. The first and most important in the region is the Public Landing in the village of Damariscotta. There are 50 moorings and 15 slips between the bridge and Hall Point. Public floats provide 24 feet of dock space. The landing has a launching ramp that is paved to the low water mark and a series of floats connected together that extend into the deeper waters of the harbor, making it accessible even at low tide.

The harbor is about 6-8 feet deep and lies some 13 nautical miles from open water. It ices over in the winter, thus making it a seasonal refuge. There are no transient moorings, pump out facilities, fuel or other marine provisions available to the mariner dockside.

Approximately eight to twelve shellfish harvesters regularly use the public landing. Several oyster growers and skiff lobstermen access work boats and rafts from the landing.

Schooner Marina, privately owned is located west of the public dock, just south of the bridge. The owner has a restaurant and plans to provide marine accessories for sale.

### **Harbor Management**

A Harbor Committee, a Harbor Master and an ordinance adopted in 1990 are all shared with the Town of Newcastle. The ordinance requires marking of vessels and moorings. Moving of moorings requires written approval of the HarborMaster. New moorings have to be inspected by the HarborMaster before being set. The Selectmen determines an annual fee for each mooring.

Section VIII of the ordinance sets out a priority for the awarding of mooring space. The priority order is:

- Resident shorefront property owner,
- Resident commercial vessel owner,
- Resident pleasure vessel owners,
- Resident commercial operators with rental moorings,
- Resident vessel owners with multiple locations,
- Non-resident commercial vessel owners,
- Non-resident pleasure vessel owners.

### Issues to Discuss

According to Paul Bryant, the HarborMaster, there are no problems. In a telephone conversation, he said it would be nice to have more moorings, but there is not any conflict between recreation and commercial fishing boats. There are very few lobster boats; they moor further down the River.

Others would like to see a more organized system for docking and planned moorings. The possibility has been suggested of creating additional docking space by dredging. Some feel management would be improved by limiting the time that dinghies can be tied to the docks.

More information is needed on the extent and value of recreational boating, and its adverse impacts as well.

### PUBLIC ACCESS

The chief point of public access for commercial fishing and recreation is the Public Landing by the parking lot in downtown Damariscotta.

Through buying land, conservation easements, and partnerships with state agencies, the Damariscotta River Association has protected several miles of shoreline and intertidal area on the Upper River and Salt Bay. These were acquired to conserve undeveloped open space. Informal public access is available to most of these areas. One such protected property is the Salt Bay Farm Heritage Center on Belvedere Road, where the association maintains a dock and float.

Shellfish harvesters enjoy foot access to flats via a number of traditional routes. While there are no acute conflicts reported, there is a provision in the Shellfish Conservation Ordinance, which addresses conflicts or potential conflicts. An agreement of access may be made between the property owner and the town, which is registered at the town office. This agreement may include the following limitations to access across private property:

- Access only during daylight hours;
- Restriction of vehicles on property;
- Designated pathways to the flats;
- Restricted areas;

## Issues to Discuss

The lack of available parking spaces for diggers is becoming an acute problem. Even if fishermen have access to the intertidal zone, they have to park their car and launch their boat someplace else. Parking at Town Landing is inadequate to meet the needs of commercial recreational fishing, boating workers, shoppers and tourists.

## POLICY AND IMPLEMENTATION STRATEGIES

### Natural Shellfish Industry

#### *Issues or Implications*

Constraints to fully realizing the value of shellfish in Huston Cove are the overboard discharges. Some progress has been made already using the Community Small Grant Program at DEP. But the lack of suitable land is the constraint to building a community septic system. Alternative systems, which need much less land, are now available.

The Salt Bay is close to being opened. If this area is to fulfill its promise all septic systems will need upgrading and docking and parking spaces will need to be developed.

#### Policies

1. Encourage clean up of all overboard discharges.
2. Work towards establishing an alliance (or expand the authority of the Great Salt Bay Sanitary District) with Nobleboro, Newcastle and Damariscotta to oversee Salt Bay and maintain tight controls on the cleanliness of the river.

#### Implementation Strategies

1. Work with DEP and the Department of Human Services to solicit proposals for a review of the septic situation in Huston Cove, then seek a grant from DEP or CDBG, or even an economic development program to finally be able to open the Huston Cove area.
2. Incorporate provisions into local shoreland zoning and harbor ordinances to protect highly productive clamming coves.
3. Work with landowners to protect buffer areas along small streams that flow onto productive shellfish flats.

### Compatibility of Shellfish Harvesting with Resource Conservation

#### *Issues and Implications*

The opportunity of opening the Salt Bay to Shellfish harvesting brings with it the responsibility to ensure that such harvesting is accomplished in ways and places compatible with conservation of the Bay's diverse and important flora and fauna.

*Probably the greatest potential impact to the overall ecology of Salt Bay and the upper river is harvesting of fish, shellfish, and other estuarine organisms. Surprisingly little is known about the flora and fauna of the bay and how they compare to those of other salt ponds and heads of estuaries up and down the Maine Coast . . . However, there is agreement among marine ecologists and wildlife biologists that the combination of the bay's Virginian relict fauna, extensive eelgrass beds, regionally significant staging and feeding grounds for migratory birds, and the fact that the flats have not been harvested intensively for clams for at least three decades is unique in the mid-coast. Efforts to open the bay's tidal flats to commercial harvesting need to weigh short-term economic benefits of resource extraction against the long-term ecological and scientific benefits of resource conservation. (McMahon)*

### **Policy**

**Collaborate with the towns of Nobleboro and Newcastle, local conservation and scientific organizations, state agencies, and other interested parties in developing information and measures to best ensure that eventual harvesting of shellfish from Salt Bay has a minimum possible negative effect on the bay's other natural resources.**

### **Implementation Strategy**

1. Encourage scientists at the Darling Marine Center and the Maine Department of Marine Resources to inventory and map the marine flora and fauna in Salt Bay.
2. Support cooperative efforts by the towns, the Damariscotta River Association and other local conservation organizations, PADRE, scientists, harvesters, aquaculturists, and others to develop a natural resource conservation strategy for Salt Bay that considers appropriate uses in the intertidal and subtidal zone, specifically including the harvesting of clams, and the implementation of appropriate procedures and regulations to realize this strategy.

## **Natural Harvest vs Shellfish Aquaculture**

### *Issues or Implications*

There are concerns about potential conflict with aquaculture. The resource and access to it is limited. One mechanism for anticipating conflict and assuring opportunity for both is the licensing procedure. In order to support pre-existing natural harvesters at license hearings, municipal officials will need accurate and up-to-date clam survey information.

The Legislature just passed a new law giving towns with shellfish ordinances authority to license and enforce terms in the intertidal zone.

Additionally there are many questions about the impact of aquaculture on the resource downstream and about the ecological affects of intense aquaculture.

### Policies

1. **The Town should actively participate in the aquaculture licensing procedure and represent the interests of all shellfish harvesters.**
2. **Advocate for research on the impact of aquaculture on shellfish industry.**
3. **See to it that the terms of the aquaculture license are enforced.**

### Implementation Strategies

1. Work with PADRE to complete clam surveys on Huston Cove and other areas if they seem promising.
2. The Town will keep informed on any license applications for aquaculture, negotiate ahead of time and participate in the public hearing process
3. Look into the possibility of delegation of authority to the Town Shellfish enforcement officer for assuring compliance with the terms of the license.

## **Worming vs. Clamming**

### Issues and Implications

Concerns have been raised that wormers can go to areas that have been seeded for clams or are closed for any other reason. Some diggers feel that the raking might disturb the regeneration of clam-flats. On the other hand, diggers also recognize that some turnover is equivalent to cultivation. Conversation with DMR indicates that the impact of worming on clams is not fully understood, but that repeated disturbance of a rejuvenating shellfish bed probably does affect the clams negatively.

The State did attempt to keep worming out of conservation areas. That raised so much opposition among wormers that the State backed down. There is no regulation of wormers now.

### Policy

1. **Encourage for research on impact of worming on clam culture.**
2. **Encourage on a cooperative relationship between local wormers and shellfish harvesters.**

### Implementation Strategies

1. Request research at Darling Marine Center or DMR on the impact of worming on clam growth.

2. If research justifies it, explore restriction on worming into Clam Conservation Ordinance.

## **Ports and Harbors**

### *Issues or Implications*

The need for boat launching and docking facilities for commercial harvesters is increasing to the critical level. Sometimes harvesters have to wait as much as four hours to tie up a boat even temporarily. There are only 14 parking spaces for boaters with trailers. Sport fishermen leave on the high tide and stay all day leaving very few slots for the commercial fishermen. Spaces are shared by Newcastle harvesters, other boaters and shoppers downtown.

If Huston Cove is opened to harvesting, it will be by boat access only. This will create a need for another 15 to 25 boat trailers parking spaces.

### **Policy**

**The Town should increase opportunities for boat access and parking for commercial harvesters.**

### *Implementation Strategy*

1. Explore Opportunities for parking for fishermen with Newcastle
2. Enforce the use of boat trailer parking spots in Municipal parking Lot.



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## HISTORICAL AND ARCHEOLOGICAL RESOURCES

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### *STATE GOALS*

TO PRESERVE THE STATE'S HISTORIC AND ARCHAEOLOGICAL RESOURCES

### *HISTORY*

In 1749, Anthony Chapman, a surveyor, came from Ipswich, Massachusetts, with two young helpers, Benjamin Day, and Stephen Hodgdon, to the present site of Damariscotta. At first they built temporary log cabins, but in 1754 Anthony persuaded his half brother, Nathaniel, a "housewright", to come up the coast from Ipswich to help them and other incoming settlers build more permanent homes. Records indicate that he built at least 10 in the area which, at that time, was known as Walpole.

For about the next hundred years Damariscotta was partly Nobleboro and partly Bristol. On March 15, 1848, the town was incorporated as the result of enabling legislation enacted in Augusta the previous year, partitioning Nobleboro and Bristol, thus forming three towns.

Shipbuilding flourished as an industry on the Damariscotta River with as many as 30 shipyards at one time or another in Damariscotta, Newcastle, Nobleboro, and just across the line in Bristol. At least 12 of these yards were in what is now the town of Damariscotta. This shipbuilding period lasted from the early 1800's until World War II with Damariscotta's part ending in 1947. The wooden sailing ship construction began to steadily decline with the development of steam power early in the 20<sup>th</sup> century.

Since then, Damariscotta has become primarily a retail and service center for not just Damariscotta, but for the surrounding towns of Newcastle, Nobleboro, Jefferson, Waldoboro, Bristol, South Bristol, and Bremen, and even further for healthcare and medical services.

Damariscotta is also a growing residential community and becoming more clearly identified as a cultural center as well. Its population has steadily increased as many have moved into the area in support of the expanding services, cultural opportunities, and retail stores. Included in this population increase are many that have come to this area to enjoy their retirement years in a pleasant rural, coastal New England setting.

## ARCHAEOLOGICAL SITES

### *Prehistoric*

Damariscotta has nine known Prehistoric ARCHAEOLOGICAL Sites of Native American origin, relics before European arrival. These are, the famous oyster shell heaps, listed on the National Register of Historic Places. Their locations are generally depicted on the map at the end of this section: One on shore of Pemaquid Pond, one on shore south of downtown, rest on shore/islands of Damariscotta River and Salt Bay.

Arthur Spiess, of the Maine Historic Preservation Commission adds that “Shorelines of Muddy, Little Biscay, and Pemaquid Ponds are considered ARCHAEOLOGICALy sensitive until ARCHAEOLOGICAL survey is completed.

*Native Americans were using the resources of the upper Damariscotta River at least 4,000 years before the arrival of the first Europeans. Artifacts collected professionally near Damariscotta Lake and upper Salt Bay and Glidden Point date at least to the late Archaic Period, 5000 to 3000 BP-(Before Present)...*

*Sometime around 2000BP Native Americans discovered the large oyster population near the outlet of Salt Bay. ... By 1500 BP they had built two of the largest shell middens on the North Atlantic coast. These include the Glidden Midden- the largest remaining midden in New England, and , on the opposite shore of the Damariscotta River, a remnant of once larger midden known as the Whaleback<sup>14</sup>*

The 1992 Comprehensive plan says that the Newcastle midden is now largest because parts of the Damariscotta midden was mined in 1886, illustrating the vulnerability of such irreplaceable relics to the lack of knowledge and appreciation. The pictures of the Whale Back and the Oyster Bank Factory were included in the Damariscotta History published for the Sesquicentennial, in 1998.

*It was thought that the largest mounds were on the western side of the river, but when the mounds on the Damariscotta side were explored, it was found that the shells began at the river and extended for over three hundred feet into the land, and over one hundred and twenty-five feet in width, giving the appearance of a great whale. Being over sixteen feet high it was given the name of “Whale back”<sup>15</sup>*

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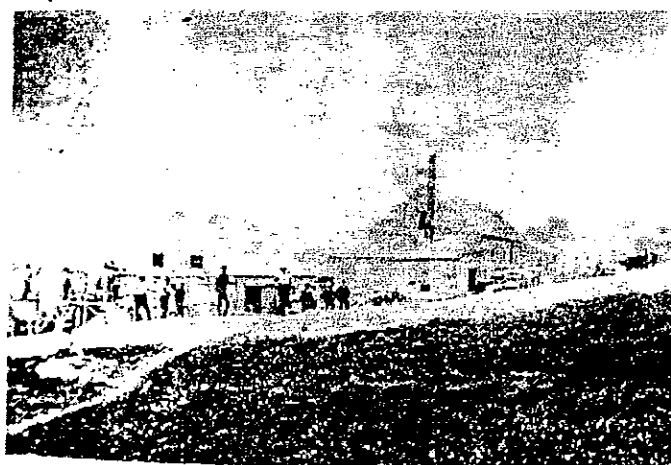
<sup>14</sup> Natural Resource Inventory and Management Plan for the Salt Bay Conservation Area, by Janet McMahon, sponsored by the Damariscotta River Association This recent study not yet published but completed in 1999 has been an invaluable addition to the information in this revised plan.

<sup>15</sup> Oyster Shells and Sailing Ships A Brief History of Damariscotta Book Committee, ( which includes our Committee member Richard Day), 1998.



The "Whale Back"

Pictorial Studio



Oyster banks factory, Damariscotta 1888

Pictorial Studio



Oyster shell mounds, Damariscotta

Pictorial Studio

The middens and other prehistoric sites of the Salt Bay Area are a cultural resource of national significance. The Whaleback and Glidden Midden were listed on the National Register of Historic Places in 1969 and the Damariscotta Shell Midden Historic District was established in 1998 to help ensure protection of nine additional shell middens and one non-shell midden site. (Natural Resource Inventory by Janet McMahon for Damariscotta River Association, 1999)

# **Town of Damariscotta Natural Resources Map**

## **Building Inventory (1992)**

- Residential
- Commercial
- Mixed Use

Parcel Lines (1992)

Steep Slopes (> 20%)

Shoreland Zone

Perennial Streams

Intermittent Streams

Lakes and Rivers

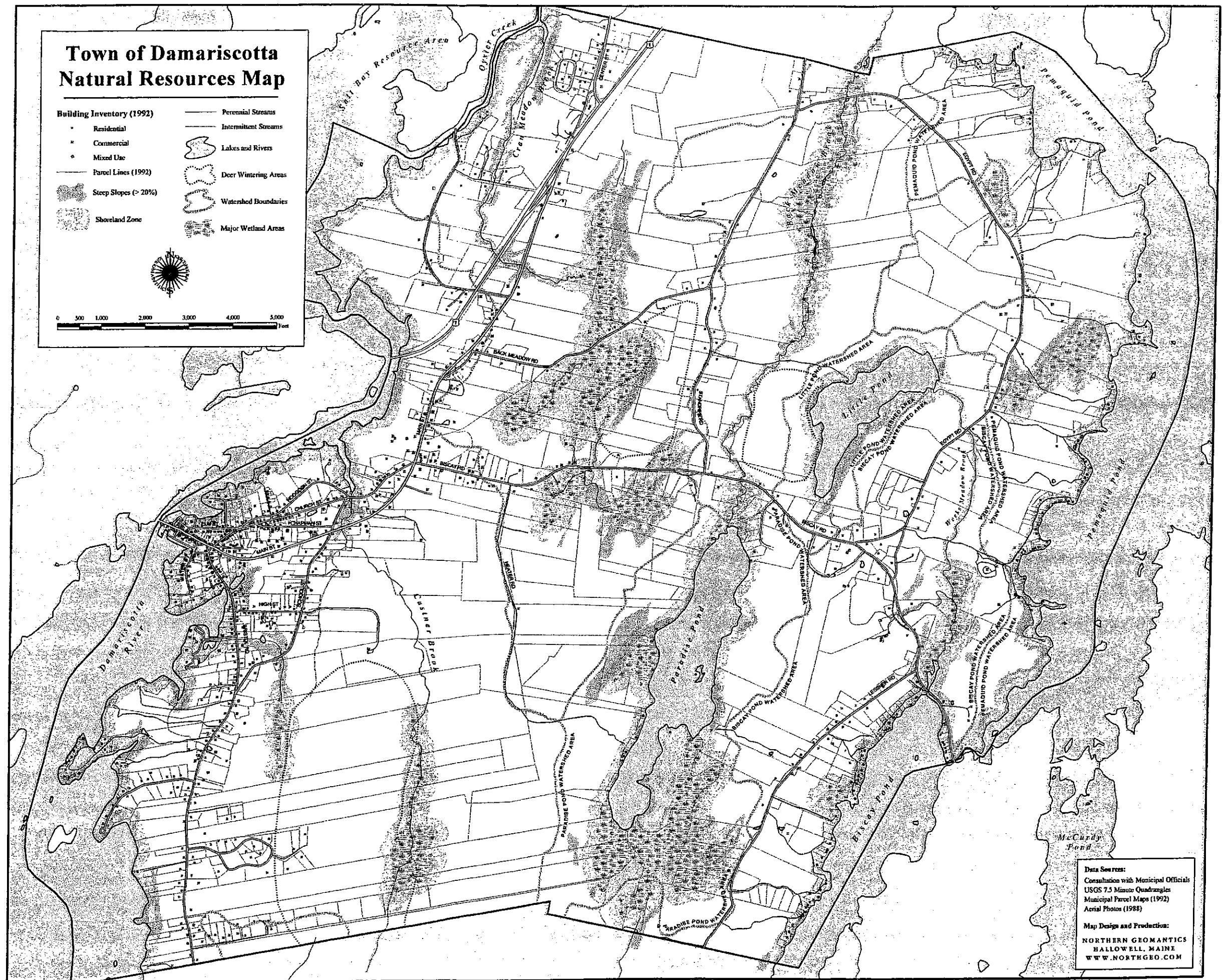
Deer Wintering Areas

Watershed Boundaries

Major Wetland Areas



0 500 1,000 2,000 3,000 4,000 5,000  
Feet



**Data Sources:**  
 Consultation with Municipal Officials  
 USGS 7.5 Minute Quadrangles  
 Municipal Parcel Maps (1992)  
 Aerial Photos (1988)

**Map Design and Production:**  
 NORTHERN GEOMANTICS  
 HALLOWELL, MAINE  
 WWW.NORTHGEO.COM



## ***HISTORICAL RESOURCES***

Many New England towns have a common, surrounded by colonial or Victorian buildings, shaded by giant maples or stately elms along with an imposing church, a prominent bandstand, gray squirrels, and pigeons. Some have lost all or part of this scene for a variety of reasons; some have carefully preserved it as near to its original state as possible, and others are somewhere in between. Damariscotta fits this "in between" category.

We have lost our elm trees to the dreaded Dutch elm disease. Our bandstand was squeezed off the common to make way for wider roads as we went from gravel to pavement, and from wagons and sleighs to autos and trucks.

We still have the vintage buildings, some maple trees, the imposing church and lots of gray squirrels and pigeons. In spite of what we have lost, there is still much to preserve. It is not too late.

Many towns have set aside historical districts and protected them through zoning so that any change will conform to the architectural styles of the historical area.

Damariscotta has taken a step in this direction by establishing an Historic Main Street District, which is in the National Register of Historic Places. (See Appendix A)

The Damariscotta Historical Society is currently seeking to expand this district to include additional structures between the Lincoln Block and the Chapman Hall house, and to include the Baptist church and the Old Massasoit Fire House. (See Appendix B)

Five of Damariscotta's structures are already individually listed on the National Register. These include the Chapman-Hall house, the Matthew Cottrill House, the Baptist Church, the Huston-Piper House (Downeaster Inn), and the Coffin-Dixon House (Skidompha Library). (See appendix C).

During Damariscotta's 1998 Sesquicentennial celebration, a walking tour of the town was offered which included 27 structures, 10 of which are 18th century, with the remainder 19th century. Eight of the 18th century buildings are nearly the same age as the celebrated Chapman-Hall House. (See appendix D).

Beyond this easy walking distance, there are many more vintage structures within Damariscotta's boundaries.

The Town needs a complete inventory of its 18th and 19th century structures with a brief history of each if available. This could be the first step toward considering the naming of some additional historic districts in town and establishing the boundaries of any that may be proposed. There may also be some structures that deserve to be included, and the owners may want to have them nominated for individual listing on the National Historic Register, whether within or outside any proposed districts.

An historic feature of another kind, the Damariscotta Oyster Shell Midden, was designated as an Historic District and entered in the National Register of Historic

Places on October 8, 1998 by the National Park Service, Department of Interior, Washington, D.C. This district includes two major middens, which were individually placed on the Register in 1969. These Middens are under continuous archaeological examination and interpretive study. Future focus of the state is to provide limited access and a small interpretive park at the site.

### Damariscotta Cemeteries

Historic features of another kind, cemeteries are listed here with some descriptive information. In the "public services and facilities" section of the 1992-2002 plan under cemeteries only three are mentioned when in fact there are over thirty cemeteries or gravesites in Damariscotta.

Map #	Name/Identity	Location	# of Gravesites
GR 1	Thompson (foot stone only)	Biscay Road (foot of Pemaquid Pd/	2 (some unmarked graves near by)
GR 2	Old Babcock Farm	Junction, Lessner & Biscay Rds(near inlet into Biscay Pond)	2
GR 3	Havener/Day	Biscay Road (in Waltz neighborhood	51
GR 4	Huston/Woodward (formerly Walpole)	Bristol Road	493 (oldest stone 1736)
GR 5	Norris/Hillside	Between Church & Hodgton St	2000+
GR 6	Bethlehem	Back Meadow Road	227 (marked)
GR 7	Old Day	School Street	16 names (15 stones some unmarked graves)
GR 10	Oliver	off Lessner Road (Zina Oliver farm/west side of Biscay Pd)	number not known
GR 11	Flint/Tuft	Round Top Center for the Arts	7
GR 16	Hoffses/Waltz	Egypt Road (near Lakehurst	
GR 17	Chapman	Back Meadow Road	50
GR 20	Davis/Hunt	Biscay Road(near Tibbetts house)	12
GR 21	Chapman	Back Meadow Road (across from old McAllister house)	13

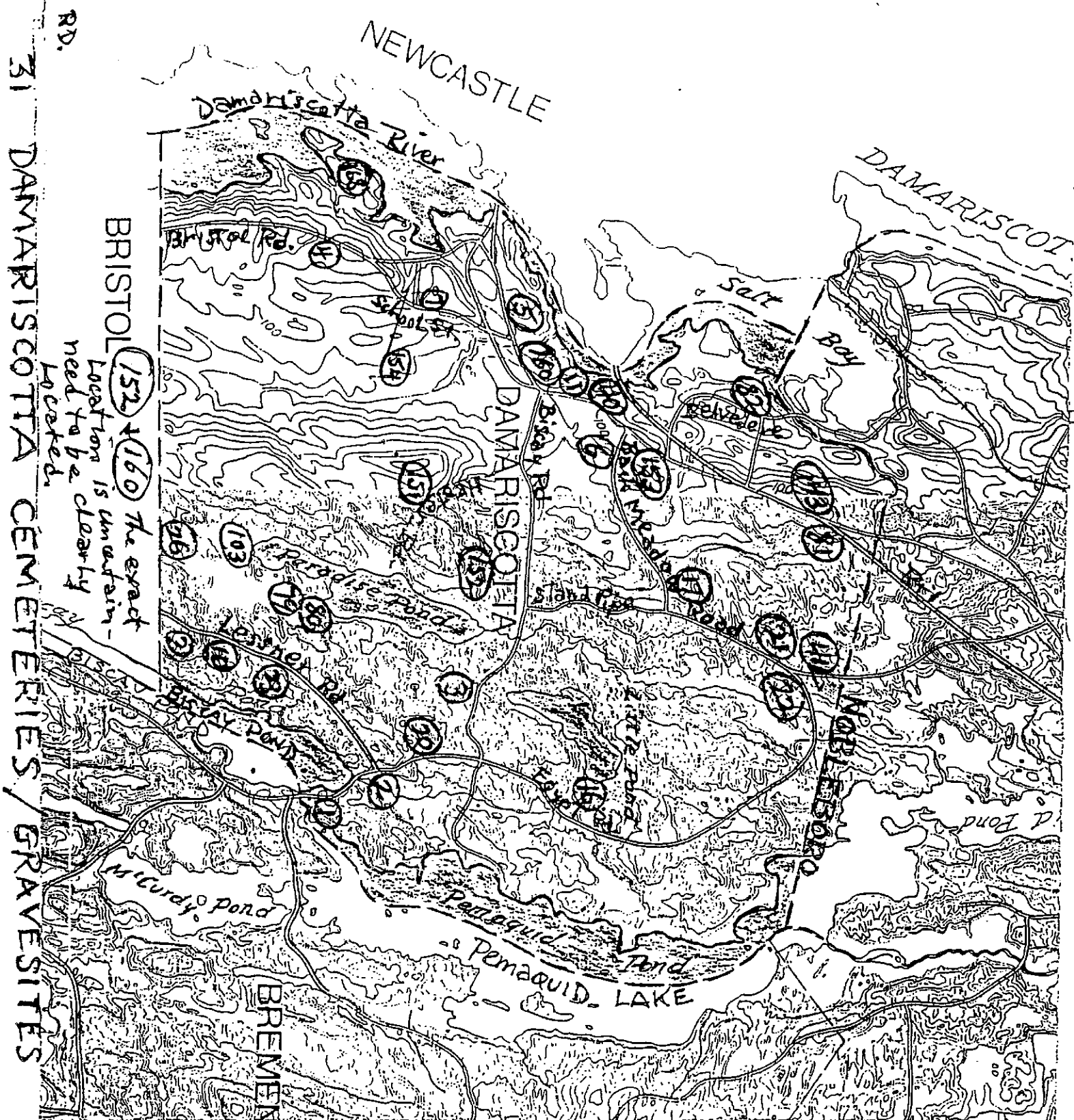


Map #	Name/Identity	Location	# of Gravesites
GR 22	Chapman/McAllister	Junction, Egypt & Heater Rds	30
GR 23	Sidelinger	Lessner Road on road to Merrill's camp	5 (marked
GR 26	Sidelinger	off Lessner Road on Bristol townline	8
GR 40	Knowlton/Russ	Route One Bypass (near bridge)-Old Jeremiah Knowlton farm, most Knowltons moved to Bethlehem cemetery (GR6)	1 standing, others fallen, plus several field stones
GR 41	Chapman	Back Meadow Road	2 marked
GR 79	Lessner	off Lessner Road	5
GR 80	Perry	off Lessner Road (across stonewall from #79)	2
GR 81	Chapman(Nathaniel & Sally)	Ralph Keene Farm	2 marked
GR 82	Plummer	Belvedere Road	6
GR 103	House/Day	Paradise Pond (at foot	19
GR 143	Old Rollins	Otis Oliver Farm	Early Indian burying ground nearby
GR 151	Smith Farm	Heater Road	none marked Entire family died of diptheria
GR 152	McDonald/Metcalf	Biscay Rd	3 unmarked
GR 153	Knowlton	Across from Bethlehem Cemetery	3 graves
GR 154	Chapman child	Behind High Street near School	1 History of this Cemetery is in Christine Dodge's book
GR ?	Glidden ?	Lessner Road no information	
GR 160	Flint	In front of Rafter Bungalo	
GR 168	Unidentified seaman	Off Bristol Road near River	Listed in E Dodge <sup>16</sup>

<sup>16</sup> According to Christine Dodge's book this is the lone grave of a merchant seaman who was very ill and died aboard his vessel. The ship's skipper dropped anchor and had his crewmen go ashore and bury their fellow seaman at this location.

The number of gravesites or burial plots may not always indicate individual graves. In some cases, it may indicate a count of marked monuments, some of which may have listed several names. Some plots may have individual head stones in addition to the family monument. Most individuals are listed in the records at the library, but the lists are not complete in all cases. The figure for the Norris/Hillside Cemetery is a rough estimate. In those cases where no count is indicated, they will have to be investigated further. They may contain all unmarked graves with no accurate individual count possible. Some of the cemeteries are over grown, making clear identification of individual burial sites quite difficult. In many cases, there are obvious indications of burial, but no stone at all or perhaps a simple fieldstone merely to mark the spot, but with no name. In very early settlement days, some burials were deliberately not marked for fear the Indians would dig them up, which they sometimes were known to do.

The Maine Old Cemetery Association (MOCA) has been doing some fine work in restoring old neglected cemeteries, but there are still lots to be done. A great task for volunteers



## *PROTECTION-PRESERVATION TOOLS EXISTING*

### *The National Register of Historic Places*

The standard of what makes an historic or archaeological resource worthy of preservation should normally be eligibility for, or listing in, the National Register of Historic Places. This tool, therefore, is the basis for all other historic preservation efforts

The National Register of Historic Places is the official list of the nation's cultural resources worthy of preservation. Properties may include districts, sites, and buildings, structures and objects that are significant in American history, architecture, archeology, engineering, and culture. The federal or state government or the community may nominate sites.

The National Park Service under the Secretary of the Interior administers it.

#### **Criteria for Evaluation<sup>17</sup>**

The quality of significance in American history, architecture, archeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

- a. **that are associated with events that have made a significant contribution to the broad patterns of our history; or**
- b. that are associated with the lives of persons significant in our past; or
- c. that embody the distinctive characteristics of a type or period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. that have yielded, or may be likely to yield, information important in prehistory or history.<sup>18</sup>

Normally sites less than 50 years old are not accepted, but there are many exceptions. It is best to write to the Department of Interior and find out for sure.

#### **Meaning of Listing on the National Register of Historic Places.**

Listing has the following results:

- ◆ Recognition that a property is of significance to the nation, the state or the community.
- ◆ Federal Activities review- agencies which propose funding, licensing or granting assistance for a project which may affect a property listed in or

<sup>17</sup> The National Register of Historic Places. , a brochure published by the National Park Service

<sup>18</sup> For more information on criteria please write National Register of Historic Places, national Park Service, US Department of the Interior, PO Box 37127, Washington, D.C. 20013-7127

eligible for the National Register of Historic Places. Must allow the Advisory Council (the Historic Preservation Commission in Maine) to comment. The purpose of the comment is to assure that the value of historic properties is given direct consideration in project planning decisions.

- ◆ Similarly, the state DEP's Site Law, regulating large-scale developments requires a review by the State Historic Commission.
- ◆ Additionally, the local planning board can request a review when considering a subdivision application.
- ◆ Preservation tax incentives are available for any project which the Secretary of Interior designates as a certified rehabilitation of a certified historic structure
- ◆ Federal, estate and gift tax deductions for charitable contribution of easements in real property must be exclusively for conservation purpose.
- ◆ Qualification for federal assistance for historic preservation, when funds are available.

**Listing on the National Register of Historic Places does not, by itself preserve, but it gives credibility to efforts of private citizens and public officials to preserve these resources.**

### *Historic District*

A historic district is an area that is eligible or becomes listed on the National Register of Historic Places. Therefore it is a subset of it and the above criteria and benefits from listing apply.

### *Constitutional Amendment*

Voters just passed an amendment to allow for property tax credit for home repair, which helps preserve the historical integrity of the property. Call to the Property Tax office of the State reveals that legislation, and rules will have to be passed to spell out the specifics of this constitutional allowance.

### *Local Ordinances*

Historic preservation is not mentioned neither in the Land Use Ordinance nor in the Site Plan review ordinance. It is included, neither as a purpose nor as a standard for review.

### *PUBLIC OPINION*

A Survey of Public opinion was done in 1992. 1,500 surveys were sent to box holders. Of those 273 were returned. That is an 18% return. That is not a very

good representation. Nevertheless when an opinion is strong even in such a small sample, it is probably an accurate reflection of public opinion.

Under a historic preservation heading, the question was asked "Should older buildings in the village area be preserved. 237, or 90% answered YES.

## ANALYSIS

Damariscotta is rich indeed in ARCHAEOLOGICAL and historical resources.

It is clear from the above description of the National Register of Historic Places, which includes the Historic District, that Damariscotta has taken the first, very significant step of recognizing and identifying places and areas of historic significance. The publication of this list and the markings and walking tour all serve to raise the awareness of residents and tourists of the significance and value of these incredible resources.

While a great deal has been done to identify values, as Richard Day and others note, more inventory and study is needed.

Arthur Spiess of The Historical Commission notes needs for further survey, inventory and analysis of the shorelines of Muddy, Little and Biscay ponds. –

Kirk Mohny, also from the State Historic Preservation Commission notes; "A comprehensive survey of Damariscotta's above ground historic resources need to be undertaken in order to identify other properties which may be eligible for nomination to the National Register of Historic Places".

Robert Bradley of the Commission staff adds:

*Other than small-scale reconnaissance work, no professional survey for historic ARCHAEOLOGICAL sites has been conducted to date in Damariscotta. Future such fieldwork could focus on sites relating to the earliest European settlement of the town, beginning in the 17<sup>th</sup> century, as well as sites of subsequent periods relating to the rich maritime history of the community.*

We note with interest that the 1962 Comprehensive plan recommended strong steps be taken to raise the awareness and with care "exploit" the oyster heaps as a tourist attraction. Much of what they recommended has been done. Nevertheless, the goal is still so apt, it is worth quoting:

*"Other historic sites, even though primarily of local historic interest, should be identified and marked. Ultimately Damariscotta is conceived as a living representation of 19<sup>th</sup> Century Maine-presenting a restored 19<sup>th</sup> century central business area, - with the aura of the past made tangible and explicit. Such an objective would require public awareness of the value of the town's unique aesthetic and historic elements and a broad program of public cooperation and town promotion. Civic clubs, high school students, merchants, the Chapman-Hall Preservation Society and*

*State agencies should be enlisted to define and help preserve the unique 19<sup>th</sup> century, aesthetic and rural elements of the town."*

### ***Preservation Options***

Damariscotta has gone a long way since 1962. It has a Downtown that is emerging as the 19<sup>th</sup> century jewel foretold in the 1962 plan. However, a designation even in the most prestigious list in the US, does not, by itself, preserve the building, area or site. Listing on the National Register of Historic Places is the first step but that is not sufficient to prevent demolition or inappropriate alteration.

The legal power to protect historic places lies chiefly with local government.

*The strongest laws for historic preservation are local laws, not federal. A municipal process creating a local historic district (done) and providing a regulatory method to protect a community's historic character is one of the strongest mechanisms to ensure that preservation occurs.<sup>19</sup>*

Most often, the reason for creating a local district is to prevent unregulated and insensitive change. This protection is accomplished through the adoption of a preservation ordinance, which is a local statute establishing a design review board and creating a design review process. The design review board is often called a preservation or historic district commission.

There is variation among the ordinances in requirements and standards. They can and must be tailored to wishes of its residents. The ordinance can take the form of a Historic Overlay Zoning, integrated into the Land Use Ordinance, and be administered by the Planning Board, or it can be a separate ordinance, implemented by the Historic District Review Board.

Eight communities in Maine have federally certified local government preservation programs. They, along with the Historic Preservation Commission, are available for examples and assistance.

## **POLICY AND IMPLEMENTATION**

### **Policies**

- 1. Town should provide a means for protecting and preserving the integrity of those buildings or areas already listed on the National Register of Historic Places and other buildings, areas, streetscapes, landscapes deemed to be of historical importance**
- 2. Expand the District to include properties already deemed eligible**
- 3. The Town should support the identification and inventory buildings, areas, archaeological or historical areas that might qualify for designation and protection**

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<sup>19</sup> Quoted in National Trust for Historic Preservation Information series #58, 1992 from a book by Constance E. Beaumont, Local Preservation Ordinances

*Implementation*

1. Establish a Historic Preservation Commission and assign it the responsibility of overseeing the inventory of historical or archaeological resources
2. Review existing ordinances, to assure consistency with policy
3. The Historic Commission will develop a Historic Preservation Ordinance.



## AFFORDABLE HOUSING

### STATE GOAL

TO ENCOURAGE AND PROMOTE AFFORDABLE, DECENT HOUSING  
OPPORTUNITIES FOR ALL MAINE CITIZENS

### INVENTORY

#### *Housing Stock*

Table H-1 compares the housing stock in Damariscotta, Lincoln County, and the State in 1980 and 1990. Housing stock in Damariscotta increased by 138 units, resulting in a growth rate of 16.3%. The 2.41 persons per household is slightly less than 2.71 in the State, or 2.58 in the County.

TABLE H-1						
CHANGES IN TOTAL HOUSING STOCK						
	Total # of Units		Increases 1980-1990		Persons per Unit	
	1980	1990	#	%	1980	1990
Damariscotta	848	986	138	16.3	2.39	2.41
Lincoln County	14,977	17,538	2,561	17.1	2.68	2.58
State of Maine	501,093	587,045	85,952	17.2	2.75	2.71

*Source: U.S. Census, 1980 and 1990*

Update: The Town Assessor reports that in 1998 there were 948 total units, that's a drop of 4% from the 1990 census figure. This may or may not be significant, as the two methods of counting are not comparable.

#### *Housing Types*

Table H-2 shows housing types as reported in the 1990 Census. The category "multi-family dwellings" includes duplexes, which the census did not tabulate separately.

65.2 % of the units in Damariscotta were single family dwellings, 61% in the Village of the Damariscotta-Newcastle area. This is considerably less than Lincoln County (79.6%) as a whole, but slightly higher percent than the State (64.5%)

Damariscotta has a higher percentage of multi-family dwellings (21.7%) than Lincoln County (7%) but a lower percent than the State (24%) This is due to the many elderly housing complexes in Damariscotta. There appear to be 63 units in three elderly housing complexes, see Table H-6

**Damariscotta also has a higher percentage of mobile homes (13.1 %) than the State (11.6) but trails Lincoln County slightly (13.4%)**

TABLE H-2  
HOUSING TYPES

	Single Family		Multi-Family		Mobile Homes		Total
	#	%	#	%	#	%	#
Damariscotta	643	65.2	214	21.7	129	13.1	986
D-N Village	352	61	198	34.3	27	4.7	577
Lincoln Cty	13,961	79.6	1219	7.0	2358	13.4	17,538
State of Maine	378,413	64.5	140,613	24.0	68,019	11.6	587,045

Source: U.S. Census, 1980 and 1990

Update: There were 117 mobile homes in 1998, a decrease of 9% from 1990 census

Table H-3 shows occupancy characteristics in 1990, year-round, seasonal and ownership. As of 1990, 86% of all housing units in Damariscotta was year-round. That is significantly less than Lincoln County as a whole. Considering the number of lakes in town, this implies that many of lakeside cottages are year-round.

Table H-3 shows there are 135 seasonal rentals, and 190 renter occupied units.

TABLE H-3  
OCCUPANCY CHARACTERISTICS IN 1990

	Total Dwellings	Year -round		Seasonal	Total Occupied	Owner Occupied		Renter Occupied
		#	%	#		#	%	#
Damariscotta	986	851	86.3	135	788	698	88.6	190
D-N CDP	577	538	93.2	39	488	335	68.6	153
Lincoln Cty	17538	12,852	73.3	4686	11,968	9955	83.2	2013

Table H-4 shows the value of housing. It appears that Damariscotta has higher

TABLE H-4  
HOUSING UNIT VALUES

Value	Damariscotta		Lincoln County	
	#	% of Total	#	% of Total
In \$s				
0-50,000	5	0.5%	470	2.6%
50,000-99,999	96	9.7%	2309	13.1
100,000-149,000	103	10.4%	1441	8.2%
150,000-199,000	83	8.4%	725	4.1%
200,000-299,999	53	5.3%	533	3.0%
300,000+	17	1.7%	287	1.6%

valued housing than the County as a whole. Lincoln County has a higher percentage

of housing available at the lower value ranges of less than \$100,000, and Damariscotta has more housing in the \$100,000 to \$300,000 range.

### **HOUSING AFFORDABILITY**

The state defines affordable as follows:

*An owner-occupied unit is affordable to a household if its price results in monthly housing costs (mortgage, principal and interest, insurance, real estate taxes, and utilities) that do not exceed 28% to 33% of the household's gross monthly income*

*A renter-occupied unit is "affordable" to a household if the unit's monthly housing costs (including rent and utility) do not exceed 30% of the household's gross monthly income*

TABLE H-5 LINCOLN COUNTY AFFORDABILITY			
	Very Low Income	Low Income	Moderate
Income range	Up to \$16,750	\$16,750-26,800	>\$50,250
% of Households	24%	20%	36%
Affordable Monthly	Up to \$320	Up to \$580	Up to \$1130
Affordable selling prices	Up to \$39,100	Up to \$71,300	Up to \$139,400
Source: Maine Department of Economic and Community Development			

Table H-5 shows the amount each income level can afford to pay for housing. This information is based on data for Lincoln County prepared by the Maine Department of Economic and Community Development. It shows that 24% of households in Lincoln County are very low income or have less than \$16,750 annual income. They can afford rents up to \$320/month or to buy a house (mobile home) up to ~\$39,000. 20% of households are low income with incomes up to \$26,800 that can afford up to \$580 monthly rent or selling price of up to \$71,300.

### **Inventory of Affordable Housing**

Next we need to estimate how many units we have available. There are general statistics that we can use to approximate the number of affordable units

1. According to the US census there were 129 mobile homes in 1990. Generally, the rents or mortgage would tend to be in the affordable range. Update: in 1998 there were 117 mobile homes
2. The income survey completed by Rural Community Assistance Program in 1996 and 1997 showed that 229 households or 49 % were in the low or very low income category.
3. Similarly, the income survey done on Whispering Pines Mobile Home Park found 20 households or 68% low or very low income.

4. Table H-3 shows there were 190 rental units in 1990. We can assume that a higher percentage of rentals than owned housing is affordable.

Another way to approach this is to call owners of known housing complexes and ask them how many units they offer and the rent. The results are displayed in Table H-

TABLE H-6 Estimated Inventory Of Affordable Rental Housing		
Address/Name	Number of Units	Rent or mortgage payment
Hodgdon Green Elderly	16	Subsidized ~1/3 of income
High Meadows High Street	23	\$343
Blue Haven rental apts	6	\$278-325
Whispering Pines Trailers, Rt 1	30	\$110 for lots, monthly.
White Birches, Heater Road	23	\$110 for lot+ mortg. ~400
Salt Bay Apartments	24	Income dependent, low as \$300-\$400 if necessary
~ Total Units	122	

Additionally we estimate about 30 apartments above retail stores downtown are probably affordable. We know from the survey that low-income people occupy many. Recently 3 houses were built with Rural Development Housing Program on Standpipe Road and 5 houses were sold under the Maine State Housing subsidy program.

The following areas in town are known to have land at reasonable prices, which could be available:

- ◆ Heater Road, big parcels potentially available in subdivision
- ◆ Biscay Road, there are 8 lots for sale <\$20,000 either for commercial or residential or both.
- ◆ Standpipe Road there are 2 lots left in an approved subdivision where other units were built with Rural Development subsidy
- ◆ Lessner Road has a subdivision which is currently having septic problems but once repaired, there are up to 14 affordable house lots.
- ◆ Egypt Road, there are five lots left with low income potential
- ◆ Storer Road,- there are a number of lots available

Additionally a local banker and member of this Ad Hoc Committee knows of a number of situations where land was given by a family member to create equity for construction. They end up borrowing much less than the finished house is worth- because of the considerable sweat equity donated by the owner, friends, and family.

## ANALYSIS

1. The first questions to ask is: Does Damariscotta meet the needs of its low income residents?

Next, we need an estimate of how many low-income residents do we have? Since the RCAP survey and the DECD data are only 5% apart, we will use the DECD data shown on Table H-5. There were 237 households with very low income and 197 with low income.

The inquiries to date lead us to estimate that we have ~ 150 affordable housing units, with more possibilities on available and affordable land.

2. The next question is; Are The Land Use Ordinances a Constraint to Affordable Housing?"

TABLE H-7 REQUIREMENTS FOR AFFORDABLE HOUSING IN LAND USE ORDINANCE				
Land Use	General Residential	Commercial 1Downtown	Commercial 2	Rural
Mobile Homes	P	P	P	C U
Multi-family	CU	CU	CU	CU
Rooming Houses	CU	CU	CU	CU
Lot Sizes	S 10,000sq.ft. NS-40,000 sq.ft	10,000sqft or per Shoreland Z	S-10,000sqft NS-40,000sqft	S10,000sqft NS-80,000sqft
PUD's	CU	NO	CU	CU
Mobile Home Parks				CU
P-Permit CU-Conditional Use permits by PB S-sewered NS not sewerd				

First lets look at the land use chart to determine if mobile homes and multi-family units are permitted in any zone or if the lot size requirements are restricting:

Then lets see if Performance Standards applied to Multi-family or mobile homes are unduly burdensome.

Mobile Homes- must meet the requirement of a single family dwelling in General residential and:

- ♦ Shall be placed on a permanent foundation of concrete masonry
- ♦ Have a pitched shingled roof

- ◆ Siding compatible with that of residential character

Multi-family (3 or more) units or condominiums - for lots not served by public sewer minimum area for 3 units shall be 60,000 sq. ft then there must be 10,000 sq. ft for each additional unit. No building may contain more than 10 dwelling units.

If public sewer is available, multi-family units must meet the 10,000 sq. feet requirement for each unit.

Rooming Houses- 2 rooms are the equivalent of a dwelling unit. In non-sewered must be at least 20,000 sq. ft, sewered 10,000

### *Conclusion/ Findings*

We cannot be certain of the numbers. Counting units within water and sewer service area plus mobile home parks or units in the rural area we estimate that we have ~ 150 units of affordable housing. This falls short of the estimated numbers of household in the low or very low-income category.

It is reported to be hard to find rental units in town.

The local land use ordinance, with one exception in multi-family units, does not treat multi-family or rooming house differently from single family homes. The mobile home standards do not seem restrictive.

Requiring 10,000 sq. ft (1/4 of an acre) minimum lot size per unit, even if sewered seems unnecessary,

The requirement of 40,000 sq. feet in non-sewered areas also seems excessive from septic system point of view. The State allows 20,000 sq. feet minimum lot size in non-sewered areas. Rural areas have 2 acre lot sizes but the availability of water and sewer provides an opportunity for low-income units in or near the central business district.

There are no constraints keeping the private sector from investment in low income housing

## *POLICY AND IMPLEMENTATION STRATEGIES*

### Policies

1. Encourage the extension of sewer and or water lines to those areas, which are not constrained for development by natural features such as wetlands. **Consider revising the Land Use Ordinance to assure that mixed uses continue to be permitted in the commercial and downtown districts.**
2. **Review the Land Use Ordinance to assure opportunities for low income/multi-family units are not unduly discouraged.**

### Implementation Strategies

1. Encourage the Great Salt Bay Sanitary District to extend service into designated growth areas.
2. Review the lot size requirements for multi-family units. Clarify the objective behind the large lot sizes and consider reducing them in sewerred areas as well as in non-sewerred residential district to accommodate more multi-family units.





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## TRANSPORTATION

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### STATE GOALS

TO PLAN FOR, FINANCE AND DEVELOP AN EFFICIENT SYSTEM OF PUBLIC FACILITIES AND SERVICES TO ACCOMMODATE ANTICIPATED GROWTH AND ECONOMIC DEVELOPMENT.

The Growth Management Act requires that each comprehensive plan include an inventory and analysis of:

*Existing transportation systems, including the capacity of existing and proposed major thoroughfares, secondary routes, pedestrian ways and parking facilities*

### THE ROAD SYSTEM

The Maine Department of transportation classifies all public roads according to the functions they are intended to serve.

State Highways are usually arterial which provide a high degree of mobility and serve "through" trips. Volumes of traffic typically range from 10,000 to 30,000 vehicles per day. The State is responsible for all construction, reconstruction, and maintenance. There are 4.8 miles of State Highway: all of US Route 1 and By-Pass Business Route 1.

State Aid Highways are usually collector roads that are conduits between residential neighborhoods and arterials. Traffic is collected from local residential roads and delivered to the nearest arterial. The State is responsible for construction, reconstruction, and summer maintenance, and the Town is responsible for winter plowing and maintenance. There are 5.6 miles of State Aid Highways: Biscay Road, School Street, and Bristol Road.

Local Roads are designed to provide direct access to abutting properties. All roads not classified as State or State-Aid Highways are considered local roads. Summer and winter maintenance are entirely the responsibility of the Town. Damariscotta has 21 miles of roads to maintain.

Private roads are roads built in subdivisions or are extended driveways which have not been accepted by the Town

## MAINTENANCE OF LOCAL ROADS

*Road or street repair costs really skyrocket if they are delayed beyond a certain point. Often it is a case of being dime wise and dollar foolish*

Damariscotta contracts for almost all of its roadwork. The Road Commissioner has a great deal of experience, having worked for MDOT for many years. He inspects the roads regularly. He has an informal plan, a seven-year rotation schedule to be sure that all roads are kept in good condition.

The Town spends about \$60,000 a year on road maintenance. There is a capital reserve account for emergency repairs of culverts.

Up to this time there did not appear to be a need for a systematic approach for evaluating and scheduling road surface maintenance. That is now no longer the case. There is a lot of competition for state funds in road maintenance. Towns which do not have a plan and are not working on a systematic program with the MDOT will be at a disadvantage when it comes to fund sharing from the State: The Legislature clarified eligibility for state aid for repair as follows:

*All State Aid "minor collector" roads- (5.6 miles- Biscay road, School Street and Bristol Road)-will only be repaired as a capital improvement if the town and the DOT agree to jointly fund the project (1/3 town and 2/3 DOT). Other wise, any State Aid/minor collector road will receive minimal DOT maintenance. "Public Laws 1999, Chapter 473*

From time to time, MDOT sends out requests for information and priorities for inclusion into the DOT Six-Year Plan. Preparing a capital improvement plan and updating it annually would expedite the working relationship with MDOT and improve chances of receiving road assistance.

The one problem the Road Commissioner expressed was the lack of coordination between the Great Salt Bay Sanitary District's pipe replacement program, and the state and local maintenance.

There are provisions in state law now that give the town more control over road disturbance: The law now requires a 5 year waiting period before a road paved by the State can be torn up. This provision has been extended to municipalities by the 119<sup>th</sup> Legislature. All municipal officers can henceforth exercise control over utility cuts into a road.

*After a road has been paved or repaired, no permit shall be granted to open that street for a period of 5 years. The town may prescribe the depth of the restored pavement, and fees may be charged, which can be placed in a "special fund" used for these repairs. LD 1207 (PL 337)-*

## TRAFFIC CONGESTION AND SAFETY

The building of the By-Pass has done much to alleviate congestion Downtown. There are, however, a number of intersections that are accident-prone. MDOT will provide upon request, an analysis of accidents in the last three years.

The table below shows the intersections or sections of roads where the number of accidents exceeded expectations for that type of road, and where there have been more than 8 accidents in the last three years. The Critical Rate Factor is the ratio of the number of times the actual accidents have exceeded the statistically expected rate.

These are red flag areas. According to Greg Costello at MDOT, if the Selectmen request it, MDOT will come out and analyze the intersection and offer advice. This information can also be helpful to the local police or law enforcement. They can pay more attention to these red flag areas when enforcing speed laws.

TABLE T-1  
ACCIDENT PRONE ROAD SECTIONS

Road section or intersection	Number of Accidents	Critical Rate Factor	Types of accidents	Possible reason
Elm/Main to just before Bridge	11	2.54	1 Possible injury; 10 property damage	Multi-direction turning
Main and Elm, and Theater Middle of downtown	7	2.56	2 Possible injuries; 5 property damage	
Main & Water	8	1.98	1 Possible injury ; 7 property damage	
Church, Main, Vine	16	1.90	16 Property Damage	
Main from Vine to School Street	31	1.41	1 Non-incapacitating injury; 7 Possible injuries; 23 Property damage	Speeding
Main and School	11	1.72	1 Incapacitating 5 Possible injuries 5 Property Damage	
Rt 1 B , Biscay Rd	8	1.38	8 Property damage	
By-Pass Rt 1 to 400' NW of School St	10	2.04	2 Possible injury; 8 property damage	
Water St to Cross St	1	3.25	1 Personal Injury	Confusing
Cross and Water	2	1.28	1 Property damage	
Elm , Main	2	2.18	2 Property damage	
Rt 1, Belvedere Rd	6	2.52	2 Incapacitating, 1 injury, 1 possible injury, 2 property damage	Speeding, heavily travelled road
Rt 1 and Rt 1 B	12	3.54	3 Possible injuries, 9 Property damage	Bad road design
Stand Pipe between Biscay and Back Meadow	1	1.21	1 Killed, 2 Possible injuries	
Belvedere Rd at Bay end	1	1.04	1 Possible injury	
Old Route 1-North	1	1.86	1 property damage	
School St from High to Bristol	9	1.08	1 Incapacitating Injury 3 Possible injuries, 5 Property damage	

Source: MDOT Accident Report 1/96-12/98

### **ORDINANCES AND RULES, POLICY FOR ACCEPTING NEW ROADS**

The Subdivision Ordinance requires that streets and roads, which are proposed for acceptance by the town, must comply with State Aid Road Specifications. The road must have a bituminous surface and the developer must certify that its construction complies with State-Aid Road Specifications. (*Pete Coughlin from MDOT questions the existence of these standards. This needs review*)

The Selectmen have adopted a policy that The Town should not accept roads that do not meet the above standards.

### **SIDEWALKS, BICYCLE PATHS**

Damariscotta has a busy downtown area with limited parking so it has to be convenient for pedestrians. Downtown has sidewalks on both sides of Main from the Bridge to Church and Vine, Water Street, Cross Street Elm, High, Vine and Church up to the flower shop; and on Bristol Road to School Street.

Many pedestrians, elderly, and school children try to walk along the busy commercial roadway. There is an urgent need for sidewalks all the way up Business Route 1 to the School.

Federal and State money was promised for sidewalks from Damariscotta Hardware to Rite-Aid but was never delivered. (*Pete Coughlin comments: "promised" if all local arrangements were finalized. If the state discovers that town/utility plans are not final, it cannot wait. Many others are waiting*)

Residents of Pleasant St, an "urban" dense area at the end of which there is day care center have requested a sidewalk.

The Town plows sidewalks on Main Street. While there is a plowing ordinance, responsibility for plowing sidewalks other than Main Street is not clear.

Bicycle Paths would be most desirable along the busy travel lanes, especially Bristol Road. Traffic in the summer is very heavy; it is unsafe for pedestrians or bicycles now. Since distances between the towns on the peninsula are not that great, bicycle use would increase were there safe paths available.

### **PARKING**

Parking has been a perennial issue for 20 years. There have been at least two parking studies since 1978. The first, by the Southern Mid-Coast Regional Planning Commission (SMCRPC) in 1978, is thorough and comprehensive; the second, in 1994 by the Chamber of Commerce is by their own admission a "very quick" study. They are both outdated but give The Town a start.

The SMCRPC study could be used as a template for an update. It includes an inventory of existing spaces and conditions, the number of employees and floor area of businesses. SMCRPC researched and proposed parking standards for each type of use. They also evaluated the lay out and traffic flow of the municipal parking lot.

The dimensions of the street and the lot are still applicable. Maine Street is constrained by its narrowness. In places, there are less than 33 feet of roadway. The parking lot is 150 by 650 feet; it had 145 spaces in 1978. The total number of spaces available on the streets and other private parking areas was 498

Using the standards, they calculated a demand for 722 spaces. Factoring in variations by day, time and season they arrived at a demand for 630 spaces.

Added to the demand were 16 spaces for clam diggers and 16 for car poolers, for 662 spaces needed. The deficit then was 164 spaces.

After considering the options, the SMCRPC made a number of recommendations, which, if followed, would have reduced the shortfall to 15 space.

The Chamber study counted 277 lots, but they did not include the private lots. They counted 162 employees who drive cars to work downtown. They also reviewed parking ordinances in Wiscasset, Boothbay Harbor, Rockland, and Camden.

The probable opening of Salt Bay and Huston Cove for shellfish harvesting will exacerbate the lack of parking and launching area

The Town applied for funds for a parking study 2 years ago, but was not successful because of the lack of an accepted comprehensive plan.

## **POLICY AND IMPLEMENTATION**

### ***Road Maintenance***

#### **Issues and Implications**

Damariscotta benefits from and bears the responsibility for maintaining the many roads that lead into it. Downtown is a traffic hub. Route 129 feeds in traffic from, Wallop and South Bristol which in turn pools traffic from Routes 130 and 32, Bristol New Harbor and Pemaquid Point

The By-Pass Route 1 ( Business Route 1) and Downtown are the business and retail hub for at least the surrounding communities, and because of its attractiveness probably much further.

The State Planning office recognized this challenge and responsibility when it designated Damariscotta as a Service Centers. As such, Damariscotta becomes eligible for funds and programs (when those become available)

While residents have not complained to date about road maintenance, it is in the best interest of the Town to prepare a prioritized plan for road repair and maintenance.

Having such a plan could also alleviate the problems coordinating local and state road improvements with utility installations.

Standards for accepting private roads as town roads refer to state standards which are out of date or non existent.

Problems regarding people digging up roads and then not fixing them have been remedied by the 119<sup>th</sup> Legislature. Municipalities are now authorized to issue Road Opening Permits. An ordinance and fees have to be established, however.

#### **Policy**

1. **The Town should prioritize its road maintenance program by preparing a Local Roads Surface Management and Repair Plan.**
2. **The Town should encourage coordinating replacement and repair schedules between CMP, Great Salt Bay Sanitary District, the Town, and the State.**

#### **Implementation Strategies**

1. In order to become eligible for 67% share of road capital improvements funds for state aid minor collector roads, the Road Commissioner shall present a draft of a Prioritized Plan to the Selectmen annually, in preparation for the annual budget.
2. The Road Commissioner shall review the State's Six year and Two-year Transportation Improvement Plan and respond in a timely manner to any communication from the MDOT regarding its implementation..
3. Town Administrator shall coordinate a meeting between the Planning Board, Public Works Department, Selectmen, and the Trustees annually to discuss permits, capacity at the treatment plant and expansion plans for the next year.
4. The Selectmen shall direct the Planning Board to review the adequacy of current standards in subdivision ordinance The Selectmen should develop Road Opening Permit Ordinance and a fee structure.

### ***Traffic Congestion and Safety***

#### **Issues and Implications**

MDOT's accident reports indicate a number of intersections or road sections where the frequency of accident rates should be of concern. MDOT will, upon request, come to the Town and discuss causes and possible remedies. The Selectmen have to ask for assistance. Managing traffic and enforcing speed limits is the responsibility of the Police Department.

Local planning boards, unlike DEP and DOT, do not have the ability to consider the traffic impacts of proposed subdivision or business construction under the Site Review Ordinance

**Policy**

1. The Town should annually review the accident reports and alleviate or minimize further hazards.
2. The Planning Board shall consider the consequences of development in regards to traffic congestion and safety

**Implementation Strategies**

1. Review the accident report prepared by MDOT and upon consultation with MDOT make recommendations to the Selectmen for reducing the hazards.
2. The Selectmen should then budget and schedule the appropriate actions.
3. The Planning Board should review the Land Use Ordinance relative to the ability to evaluate the impacts of proposed development on traffic. If needed, amend ordinance to provide that authority. Consider amending the ordinance to include entrance/driveway, curb-cut policy.
4. The Town should explore traffic flow patterns Downtown

**Sidewalks****Issues and Implications**

Sidewalks are needed for safety on Business Rt. 1 all the way to the School. There is heavy local traffic turning in and out of businesses along the Business Rt. 1. Some children ride their bikes or walk to School.

It would be highly desirable to continue the sidewalk on Church or a clear right of way from Chapman or along Vine Street for pedestrians who try to walk to the shopping center on Business Rt. 1.

The responsibility for maintaining and plowing sidewalks is not clear. The Town attempts to plow on Main St. however, because of the uneven sidewalks that were not built according to state standards, plowing is often difficult.

Sidewalks are considered part of the public infrastructure for the local economy.

There has been some missed communications with MDOT. MDOT requested an application from the Town for sidewalks in 1996. Damariscotta submitted an application but it was not funded. DOT suggests that sidewalk repair or new construction be incorporated into local road improvement plans and the MDOT's Biannual Transportation Improvement Plan (BTIP).

**Policies**

1. The Town should take the responsibility for securing funding to build and replace sidewalk according to state standards.
2. The Town should assure that sidewalks are adequately maintained.

Implementing Strategy

1. The Selectmen should consult with MDOT regarding the possibilities of linking the Downtown with businesses on Business Route 1 and pursue funding to construct it
2. The Town Administrator should ascertain costs and sources of funding

**Parking**Issues and Implications

While there have been many committees and some studies, the parking problem is still not well defined. The Southern Mid-coast Regional Planning Commission study was thorough and could be used as a template for updating. It is not clear how many of their recommendations were implemented.

There is a developing need for a bus stop and parking for the increasing number of tour buses that come through Town.

The lack of access for shellfish harvesters discussed in the Marine Resources Section of this Plan Update continues to beg for solution.

Policies

1. **The Town should examine the adequacy of parking spaces Downtown especially during the tourist season.**
2. **The Town should examine the adequacy of parking opportunities for ShellFish Harvesters to access The Damariscotta River and Great Salt Bay.**

Implementing Strategy

1. The Selectmen should periodically survey the parking situation Downtown. and:
  - a. work with Shell Fish Conservation Commission and the Town of Newcastle to identify parking spaces with easy access to Salt Bay for Shell Fish Harvesters
  - b. work in partnership with the Chamber and business owners to develop a parking lot off Downtown and operate a Van for employee parking.
  - c. explore feasible options to expand the municipal parking lot
  - d. explore purchasing land for additional access to Salt Bay for commercial harvesters.
  - e. develop a plan and seek funding to acquire the necessary land to develop the documented parking spaces needed.
2. Make provisions for parking Tour Buses, which are stopping by with increasing frequency



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## PUBLIC SEWER AND WATER SERVICES

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### STATE GOAL

*TO PLAN FOR, FINANCE AND DEVELOP AN EFFICIENT SYSTEM OF PUBLIC FACILITIES AND SERVICES TO ACCOMMODATE ANTICIPATED GROWTH AND ECONOMIC DEVELOPMENT.*

### GREAT SALT BAY SANITARY DISTRICT

#### *Date and Authorization of Organization*

The District was organized on December 28, 1972 under Title 38, Chapter 11 of the Maine State Statutes, also known as the Maine Sanitary Enabling Act. On April 8, 1994, under the provisions outlined in LD 1799, the authority was expanded by the Legislature to supply potable water to the service area.

#### *Population served*

The District's wastewater system currently serves approximately 1420 users through 602 service connections. The water system serves approximately 1530 users or 650 customers.

In 1996, the NE Rural Community Assistance program conducted an income survey of the households in the water service area. 45% were found to be low or very low income. The response rate was 77 %. The median household income was found to be \$22,899. Percent of low/very low-income individuals was 45%

#### *Financial Status of District*

The District has had to finance the cost of the purchase of the system and any significant upgrades or improvements. The loans have been secured through lower interest loans from USDA's Rural Development (formerly Farmers Home Administration). The Superintendent has also been successful in securing Community Development Block Grant for some necessary renovation of the water or sewer lines. Debt payments and operating revenues are raised through user fees.

The PUC regulates the fee structure for the water component of the District. The rate is structured according to type of service, residential or commercial, and according to volume used. It is a decreasing rate structure, which means that the unit cost goes down with the increase volume used.

There is a fee for private or public fire protection. The municipalities served by hydrants pay a hydrant fee. The Public Utilities Commission recommends 1/3 of operating costs be recovered by hydrant rental fees.

Unique to this District is that its sewer use ordinance authorizes it to levy an impact fee for connecting to the wastewater system. When new users wish to connect to the system, they are charged an initial hook-up fee, currently \$2,467.

This is entered into a reserve account, which is dedicated solely to the purpose of upgrading that portion of the treatment system that benefits all users.

This District is also exemplary in maintaining reserve accounts. This not only provides the necessary funds for capital improvements but is also an excellent tool for capital improvement planning.

### ***WASTE WATER COLLECTION AND TREATMENT SYSTEM***

Working closely with the state and federal agencies, the Great Salt Bay Sanitary District completed the construction of new wastewater collection and treatment facilities in 1988. The system serves Damariscotta and Newcastle.

Prior to the construction of the new wastewater collection and treatment facilities, untreated sewage from the towns of Damariscotta and Newcastle flowed to the river, causing closure of the highly productive clam-flats. The sewer system will be an important aspect of restoring and preserving the water quality and valuable fisheries of the Great Salt Bay.

There are two collection and treatment systems administered by the District: in Damariscotta-Newcastle and in Damariscotta Mills, a village of Nobleboro.

#### ***Damariscotta-Newcastle Collection and Transmission System***

The wastewater collection system consists of approximately 6 miles of interceptor and collector sewers and 4 small submersible pump stations that serve the village portion of the Towns of Damariscotta and Newcastle. The transmission system consists of the main pump station at Day's Cove and approximately 5200 feet of force main, which carries the entire wastewater flow to the treatment plant. There are also approximately 7,500 feet of effluent force main, which carries the treated effluent from the treatment plant to the outfall into the Damariscotta River.

#### ***Damariscotta-Newcastle Treatment Plant***

The Damariscotta-Newcastle wastewater treatment facility provides secondary treatment through aerated facultative lagoons. The plant consists of an influent flow meter, a grit removal structure, three lagoons, chlorination, an effluent/recirculation pump station, control building, and related structures.

The treatment plant outfall discharges to the Damariscotta River, Class SB. The waste discharge license has been granted by the Maine DEP and the USEPA. The license requires rigorous quality standards and monitoring.

While it is designed not to build up sludge for 10-15 years, the District has been building a reserve account in preparation for the day that sludge disposal is necessary.

#### ***Damariscotta Mills Collection and Transmission System***

The collection system is made up of approximately 3,000 linear feet of 6-inch sewers; a lakeside pump station; and one district owned septic tank effluent pump station. The effluent is collected from District-owned and maintained septic tanks

at individual homes in the Damariscotta Mills Village in Nobleboro and Newcastle.

### *Damariscotta Mills Treatment Plant*

The treatment plant at Damariscotta Mills provides secondary treatment by intermittent sand filters and disaffection by liquid sodium hypochlorite. The treated effluent is licensed by the Maine DEP and U.S.EPA to be discharged to the Damariscotta River.

### *Capacity To Meet Future Needs*

The Damariscotta-Newcastle treatment plant is designed for 268,000 Gallons Per Day ( GPD). The average actual volume of wastewater treated is 110,000 GPD. There is capacity for more users. Assuming the same user mix, the 602 connections use an average of 180 GPD. Theoretically, the Plant could accommodate twice as many customers as it has today.

The treatment plant at Damariscotta Mills is designed for 15,000 GPD. The average daily flow is now 5,000 GPD. This system also has some, more limited, expansion capability.

The District is governed by a sewer use ordinance. Under the Ordinance if new users wish to connect to the system, they are charged an initial hook up fee, currently, \$2,467. The District is not in a position, nor does it have a policy to build pro-actively in anticipation of future development.

## **PUBLIC DRINKING WATER SERVICE**

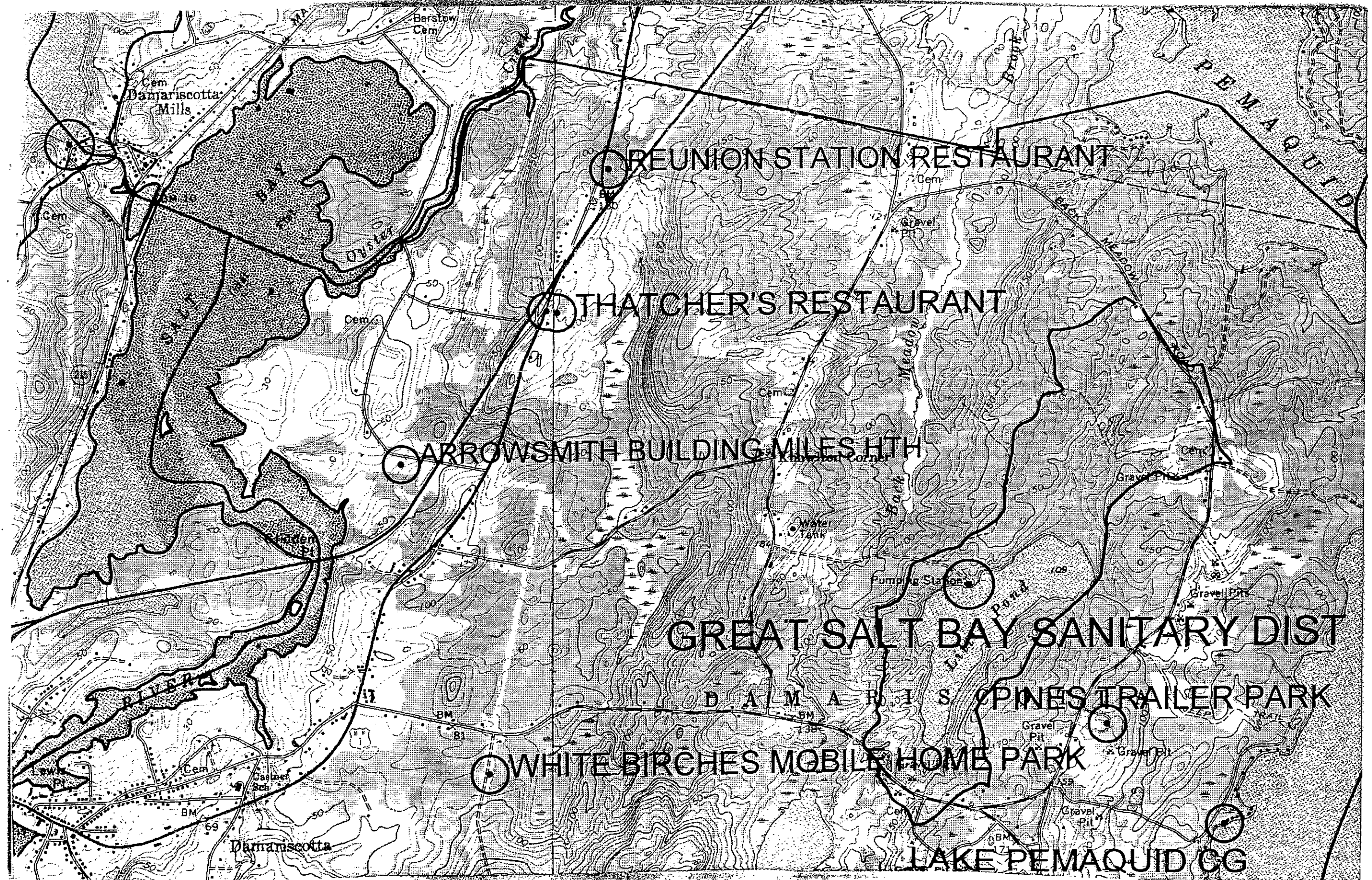
### *Public Water Suppliers*

The Great Salt Bay Sanitary District is a municipal public water supplier. It provides drinking water to ~1500 people in Newcastle and Damariscotta.

The national Safe Drinking Water Act considers water systems serving more than 25 people on a daily basis a "Public Water Supply" According to this definition, there are 6 other public water suppliers in Damariscotta:

- ◆ Reunion Station Restaurant
- ◆ Thatchers Restaurant
- ◆ Arrowsmith Building, Miles Hospital
- ◆ Pines Trailer Park
- ◆ White Birches Mobile Home Park
- ◆ Lake Pemaquid Camp Ground

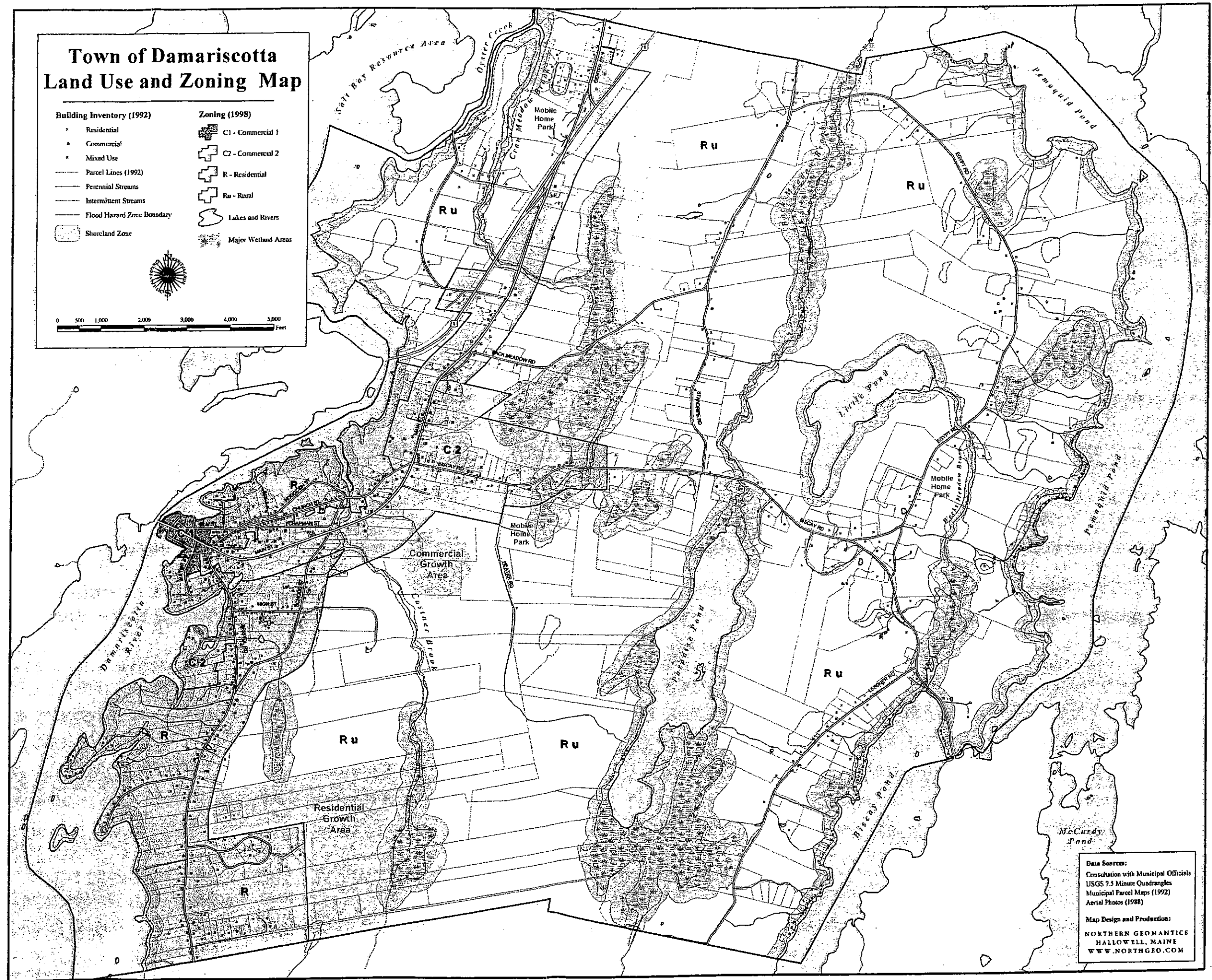






# **Town of Damariscotta Land Use and Zoning Map**

- |                                  |                      |
|----------------------------------|----------------------|
| <b>Building Inventory (1992)</b> | <b>Zoning (1998)</b> |
| * Residential                    | C1 - Commercial 1    |
| * Commercial                     | C2 - Commercial 2    |
| * Mixed Use                      | R - Residential      |
| — Parcel Lines (1992)            | Ru - Rural           |
| — Perennial Streams              | Lakes and Rivers     |
| — Intermittent Streams           | Major Wetland Areas  |
| — Flood Hazard Zone Boundary     |                      |
| Shoreland Zone                   |                      |



**Data Sources:**  
 Consultation with Municipal Officials  
 USGS 7.5 Minute Quadrangles  
 Municipal Parcel Maps (1992)  
 Aerial Photos (1988)

**Map Design and Production:**  
 NORTHERN GEOMANTICS  
 HALLOWELL, MAINE  
 WWW.NORTHGEO.COM

### ***Protection of the Water Supply Source***

The Safe Drinking Water Act requires that the public water meets certain health standards and that the source be protected from contamination. Protection of drinking water quality is achieved through vigilance and in some cases controls over the land uses affecting the source water. In the case of public water supply wells, the land area to be protected is referred to as the "wellhead protection area". In the case of surface water, such as Little Pond, the supply for the municipal water system, is the the watershed of the Pond.

The map on the facing page was mailed to Great Salt Bay Sanitary District on September 5, '00. It shows the wellhead protection area around the 6 small public water supply wells and the watershed boundary of Little Pond, that needs to be protected.. The small system's wellhead protection area is a circle whose radius is 250'. The protection area for the surface water supply is the entire watershed of Little Pond.

To support the efforts of the public water suppliers in protecting the source, the 119<sup>th</sup> Maine Legislature enacted a law granting abutter status to these suppliers. That means that they will be notified of and can comment on permits for significant land use changes taking place in the watershed.

### ***Little Pond Watershed.***

Little Pond in Damariscotta, is the source of supply for the Great Salt Bay Sanitary District. The Pond is 83 acres, its average depth is 18 feet. There are two intermittent tributaries. All 435 acres of the Little Pond watershed are located in Damariscotta.

### ***Water Quality***

Little Pond has been used as a water supply since 1897. Water quality was reportedly of high quality until the late 1960's, when problems associated with blue-green algae blooms developed. DEP identified an abundant population of zooplankton as the source of the problem. In an effort to control this population, the DEP stocked adult alewives into the pond. It was hoped that the foraging adults and resulting offspring would significantly reduce the problematic zooplankton population. It was successful.

The town's dump had been located less than one mile from the pond. It has been closed, eliminating this source of nutrients from the thousands of congregating gulls.

A gravel pit operation in the northern part of the watershed was probably a source of sediment. The owner has ceased using the gravel pit and has stabilized the site by constructing a detention pond.

There was also a set of dams, which could cause sedimentation. The Great Salt Bay Sanitary District has recently purchased the land with the dams. The removal of the dams will eliminate that potential water quality threat.

### Current Water Quality Data

The water quality of Little Pond in 1999 was excellent as evidenced by the following data:

Parameter	Average	Maximum	Minimum
PH /surface	6.52	6.83	6.30
Turbidity/NTU	0.63	1.37	0.30
Nitrate/mg/liter	Below	detection	limits
Nitrite/mg/liter	Below	detection	limits
Coliform/#/100ml	0 in distribution system, 0-6 in raw untreated water (20/100 is the Federal and State Maximum)		
Secchi Disc	Averaged 21 feet		

### Land Use in the Watershed

Land use in the watershed is the critical factor determining the quality of the water. Managing the uses in the watershed must be a cooperative effort. The landowners need to be mindful of their practices, especially the functioning of their septic systems or any other waste disposal.

The Town, through its land use ordinances can exercise some control over the level of intensity of use. The best means of controlling land use, however, is through the Great Salt Bay Sanitary District ownership of the land and being in control of all practices on it.

The Great Salt Bay Sanitary District had already owned 133 acres of the 450 acres in the watershed. It has recently purchased 180 acres, including the land with the dams. Therefore, the Great Salt Bay Sanitary District now owns 313 acres or 70% of the watershed. It can now consider removal of the dams, thus eliminating that threat to water quality.

There is still a small part of the watershed that is not owned by the District. While it is in the Shoreland Zone, it is not in Resource Protection District, therefore development is not prohibited.

### Waiver from Filtration

The Safe Drinking Water Amendments of 1986 required that all surface water sources be filtered to eliminate the potential of contamination by protozoa Giardia lamblia, E coli, Legionella bacteria and viruses. Water suppliers were given the opportunity of applying for a waiver from the filtration requirement if they could show that the source water was free of these contaminants, and sufficient land use controls could be applied to minimize the likelihood of contamination.

Filtration plants built in the 90's have been generally very expensive, in the range of \$1-\$2 million.

The Water Company applied to the Department of Human Services for such a waiver. In order to be eligible they had to be able to demonstrate that they had no E coli in the system and the turbidity was well below the maximum level.



The Great Salt Bay Sanitary District was able to show that they had sufficient control over the land use activities in the watershed. The waiver was granted by Department of Human Services on 12/30/91.

The Great Salt Bay Sanitary District submits tests of the raw water as well as water in the distribution system monthly. Please see the latest year end report above. In addition to monitoring the quality through testing, the Department of Human Services has an annual sanitary inspection program.

## ***DISTRIBUTION SYSTEM***

### ***The Size and Condition Of Piping***

The water distribution system, from the source at Little Pond, to the downtown area was constructed in 1896. Of the total 85,134 feet of distribution and transmission mains only 15,000 feet of the vintage 1896 cast iron pipe remains. The District has replaced 11,350 feet of inadequate 6-inch water main along Biscay Road Damariscotta, and Academy Hill Road, Newcastle with funding from Rural development ( formerly farmer's Home)in 1996.

The grave threat to public safety from inadequate fire flows identified in 1994-1998 has now been alleviated, thanks to an extraordinary cooperative effort and partnership between the District, the Hospital, and the voters. The District was successful with CDBG/EDI grant application in the amount of \$400,000. The Town, Miles Memorial Hospital, and the District contributed a major water main replacement project in 1999-2000.

### ***Storage tank***

According to the 1994 evaluation, the existing 500,000 gallons steel storage tank is in good condition and is generally adequate to meet existing needs. The volume of the tank is sufficient to provide 2 days of emergency storage if the source of supply were interrupted. It is also adequate to meet normal system peak demands. It is, however, somewhat deficient with respect to capacity for fire demands, particularly in the downtown area of Damariscotta.

## ***FUTURE EXPANSION NEEDS***

Growth in the area has been largely outside the service area. However, the number of residential and commercial customers has increased by 7% and 24% respectively. Commercial growth on Business Route 1 accounts for a major part of the increase and additional growth in this area will most probably occur. Water use is expected to increase at the same 10% per decade as it has in the last 20 years.

Wright Pierce Engineering has prepared the following table comparing existing and future demand.

FLOW	EXISTING DEMAND	FUTURE DEMAND
Average Annual Flow	155,000 gpd	187,500 gpd
Maximum Day Flow	280,000 gpd	337,500 gpd
Fire Flow	750 to 3,000gpm	Same as existing

The pumping station at Little Pond will need to be upgraded to 300 gpm to accommodate the estimated future demand.

A second tank might provide additional volume and would provide redundancy so that storage would be available when one tank is taken out of service for maintenance and repairs.

The Great Salt Bay Sanitary District once again was successful in obtaining a low interest loan from the State Drinking Water Program (with funds from Safe Drinking Water Act amendments of 96) to extend the water line to Whispering Pines Trailer Park. With this extension, public water is now available for businesses all along Business Route 1.

## POLICY AND IMPLEMENTATION STRATEGIES

### *Protection, Possible Filtration of Water Supply*

#### Issues and Implications

The consultants evaluated the water supply and found that while the waiver is a reasonable short to medium term solution, they were concerned that it may not hold up forever. Since the report was written three things have happened:

1. -The Water Company was bought by the Great Salt Bay Sanitary District, a quasi-municipal organization, with more resources for funding than the Water Company;
2. - Congress passed the new Safe Drinking Water Act Amendments of 1997 which places even more emphasis on source protection and small scale less expensive technology for filtration;
3. - The Great Salt Bay Sanitary District bought 313 acres in the 450-acre watershed.

The probability of failing to meet the water quality standards is diminishing. However, there are still the 30% of the watershed, which could use careful management.

The Great Salt Bay Sanitary District needs the cooperation of the municipality in whose jurisdiction the watershed lies. The utility does not have any land use control authority, other than what it buys through the purchase of the land. Having already given up 70% of the watershed, it appears it would be in the town's interest to adopt land use controls for the remaining land so that it can stay on the tax rolls

"Source Protection: A Guidance Manual for Small Surface Water Supplies in New England" March 1996, offers a range of methods to protect the watershed of a surface water source:

### Policy

**The Town recognizes its responsibility to protect the water supply for 1500 people in the towns of Damariscotta and Newcastle. The Town should work with the Great Salt Bay Water District to develop a management plan and associated ordinances to assure that the high water quality of Little Pond is maintained.** (Same as Policy under the Natural Resources Element, page 36)

### Implementation Strategy

1. Selectmen work with the Trustees of the Great Salt Bay Sanitary District to study other water district management plans.
2. - Develop and adopt watershed ordinance consistent with management plan, in which the performance standards are tailored to this particular water body and watershed.

## **Waste Water Treatment Allocation**

### Issues and Implications

This is a regional issue since the District serves three towns, and the Trustees are elected from all three towns. The growth policies of the three towns were developed independently of each other. They do intersect when it comes to utility service. The towns, their planning boards and selectmen, and the Trustees may need to periodically have a conversation about growth and expansion policy.

The District's current policy, dictated by the PUC, is that they meet a need upon petition.

There may be an allocation issue. Newcastle has a strict zoning ordinance, therefore it is limited in its ability to build out. Damariscotta's zoning is not as strict is experiencing considerable commercial expansion. There may be a problem of either Town uses up capacity by accommodating a business or industry, which uses a lot of water.

The Traffic element of this plan also cites difficulties coordinating road work between the towns, MDOT and the GSBSD

**Policy**

**Coordinate the growth, land use policies and road maintenance and repair activities the three towns with the Great Salt Bay Sanitary District**

**Implementation strategies**

Set up a meeting between the Planning Boards, Public Works departments, Selectmen, and the Trustees annually to discuss permits, capacity at the treatment plant and expansion plans for the next year.

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## **FISCAL CAPACITY**

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### **STATE GOAL**

TO FINANCE AN EFFICIENT SYSTEM OF PUBLIC FACILITIES AND SERVICES TO ACCOMMODATE ANTICIPATED GROWTH AND ECONOMIC DEVELOPMENT.

### **INTRODUCTION**

The purpose of this element is to gain an understanding of the financial condition of the Town.

The first section "Assessed Values and Taxes" will show the assessed values, upon which the property tax is based, and how the tax rate is determined. Damariscotta's tax rate and tax exempt property will be compared with neighboring towns.

The "Revenue" section will show the sources of revenue and the amount raised in the last 9 years. The "Expenditures" section shows trends in expense categories in the same period. An analysis of trends reveals the degree of reliance on the property tax.

"Fund Balances and Borrowing Capacity" shows compliance with budgets and accumulation of capital reserve and accumulated fund balances, which are undesignated funds. Analysis of the adequacy of the surplus funds and capacity to take on additional debt is presented.

"Capital Expenditures and Funds" section displays the history of the capital reserve account, capital expenditures and how they were financed during the last 9 years.

### **ASSESSED VALUES AND TAXES**

Property taxes pay for most of the services offered by the Town. The amount of tax homeowners pay depends on the assessed value of all property, the revenues received from the states and the anticipated expenses of the town for the upcoming year.

Property is assessed by the tax assessor locally and adjusted by the State for current 100% valuation. Prior to the budgeting process the State sends the Town its assessed values. This is important because the General Purpose Aid to Education is based on a formula, a key factor of which is the State assessed value.

The tax rate is calculated each year (*for sake of simplicity, ignoring details*) by dividing the amount authorized to be raised through local property taxation by the total assessed value of property.

In 1999 this was  $\$2,501,557 / \$167,627,900 = .0157$

To make this easier to understand and talk about, this rate is multiplied by 1000 and called mills. That is the tax rate is \$15.70 per \$1000 of assessed value.

**TABLE F-C-1**  
**LOCAL AND STATE VALUATION AND TAX RATE**

<b>YEAR</b>	<b>Local Assessed Value*</b>	<b>State Assessed Value*</b>	<b>Tax Rate in mills</b>	<b>Homestead Exemption</b>
1990	183,222,295		8	
1991	167,535,919	155,350,000	9.8	
1992	168,984,419	168,150,000	10.2	
1993	161,107,432	162,809,419	10.8	
1994	163,934,846	168,657,044	11.1	
1995	165,208,077	161,100,000	11.4	
1996	169,458,372	167,850,000	12.3	
1997	170,729,071	172,500,000	12.9	
1998	162,846,000	169,554,780	13.6	3,728,700
1999	167,627,900	168,650,000	15	3,584,000
2000 est.		173,650,000		

Source: State letter to Town and Town Annual Reports

\* Includes real estate and personal property

Table F-C-1 shows local and state valuation and tax rate for the last 9 years. The reasons the figures don't exactly match the above calculation are the details. For example, the net value is lowered by the Homestead Exemption, a measure passed by the 118<sup>th</sup> Legislature, exempting 7.5 % of homestead valuation in 1998. This lowers the tax rate for the individual homeowner, but the State reimburses the Town for this exemption. Other allowable deductions are the State Municipal Revenue Sharing plus other trust fund income.

While the local assessed value has stayed fairly constant, the tax rate has almost

**TABLE F-C-2**  
**COMPARISONS OF TAX RATE**

<b>Town in Lincoln County</b>	<b>Population</b>	<b>State Value</b>	<b>Mill Rate</b>	<b>Per Capita Tax</b>
BOOTHBAY	2,566	349,650,000	10.11	1,378
BOOTHBAY HARBOR	2,214	327,150,000	15.6	2,305
BREMEN	639	93,800,000	7.1	1,042
BRISTOL	622	387,250,000	8.6	5,354
DAMARISCOTTA	1,866	169,000,000	13.97	1,265
NEWCASTLE	1,584	126,900,000	14.25	1,142
NOBLEBORO	1,554	109,050,000	12.9	905
WISCASSET	3,700	447,950,000	12	1,453

Source: 1998 Municipal Valuation Report, Statistical Summary, Prepared by Property Division

doubled from 8 to 15 mills in 9 years

Table F-C-2 shows how Damariscotta compares with selected Lincoln County towns. Boothbay, Boothbay Harbor, Bristol and Wiscasset have higher total property assessment. Damariscotta's mill rate compares to Bristol, Newcastle and Nobleboro. In per capita tax, Damariscotta is about in the middle among these towns.

The tax base, or the assessed value of the property used for calculating the tax rate is reduced by the amount of tax exempt property. This reduces the denominator in the formula for calculating the tax rate, and thus increases the tax rate.

The value of tax exempt property in Damariscotta was \$29,286,000 in 1998. That is 17.3% of the property tax base. It appears that Damariscotta is next to Boothbay

TABLE F-C-3  
TAX EXEMPT PROPERTY COMPARISONS

Town in Lincoln County	State of Maine	Benevolent <sup>1</sup> Charitable	Literary <sup>1</sup> Scientific	Churches <sup>2</sup> Parsonage	Hospitals <sup>2</sup>	Public Water & Sewer	TOTAL Exemptions
BOOTHBAY	959,300	3,358,600	101,700	1,284,900			20,599,300
BOOTHBAY HARBOR	3,804,540	3,894,150	-	1,730,340	4,009,500		33,969,640
BREMEN	-	-	-	58,300			415,300
BRISTOL	1,774,500	589,500	271,800	820,100			13,728,700
DAMARISCOTTA	578,700	1,403,200	1,260,300	967,200	13,993,500	2,551,200	29,286,000
NEWCASTLE	2,639,863	78,019	-	2,126,782	1,382,381		11,668,946
NOBLEBORO	-	541,200	-	477,200			2,385,800
WISCASSET	58,100	748,600	1,866,600	1,772,500			23,122,200

Source: 1998 Municipal Valuation Return, Summary, Property Tax Division

1-Part V A

2- Part V B

Harbor in the amount of total tax-exempt property. However, Damariscotta has the highest proportion of tax exempt property in Lincoln County. Boothbay Harbor's tax-exempt property is 13.7 % of the property tax base. Miles Hospital, serving much of the Mid-coast area, valued at \$13,993,500, is the highest value tax exempt property on the chart.

Veterans and their organizations also get an exemption. There was \$653,000 value exempted for veterans of various wars and \$277,000 for the American Legion VFW post.

Other tax exempt property which serves more than the town are the many benevolent, non-profits, the library and the public water and sewer system, which also serve Newcastle and Nobleboro.

#### Payment in Lieu of Taxes.

If all the tax-exempt property valued at \$29,286,000 were taxed at 13.6 mills in 1998 they would yield \$398,290. Payment in lieu of taxes was \$12,700 in 1997. It should be noted that Miles Hospital, recognizing the increased need for fire protection in the

Miles Complex, has contributed the chassis for a fire truck to the Fire Department, saving the cost of a fire truck @\$30,000-50,000.

Another sources of reduced assessment are the Tree Growth, Farm and Open Space assessment programs. Land in these programs is assessed at their current use rather than at their market value.

TABLE F-C-4  
SPECIAL USE VALUATION

Town in Lincoln County	Tree Growth		Farm Land		Open Space	
	Acres	Value	Acres	Value	Acres	Value
BOOTHBAY	1,181	132,141	33	12,694	463	1,638,130
BOOTHBAY HARBOR	123	12,717	20	5,000	35	55,100
BREMEN	3,595	398,520	41	7,783	133	913,073
BRISTOL	1,389	145,163	135	41,500	340	411,400
DAMARISCOTTA	1,234	133,651	45	45	30	44,800
NEWCASTLE	7,015	767,878	50	5,000	-	-
NOBLEBORO	303	31,576	-	-	28	1,740
WISCASSET	417	47,494	-	-	173	32,100

Source: 1998 Municipal Valuation Report, Statistical Summary, Prepared by Property Division

As Table F-C-4 shows, Damariscotta has very little land under current use assessment: 1,234 acres in Tree Growth, 45 acres in Farmland and 300 acres in Open Space. Land in conservation easement is not included here and is probably taxed at about the same rate as open space. Unlike other tax exempt property these lands require no services from the town- no police, fire, ambulance or solid waste, and certainly no education. The State reimbursed the Town \$3,132 for the Tree Growth program in 1998. ( Data provided by Winfield Smith, Maine Revenue Service)

Year	Property Tax	Excise Tax	Intergovernmental*ND Revenue Sharing Highway Funds		Education	TOTAL **
1990	1,429,656	169,652	126,650-ND		155,891	1,944,719
1991	1,641,852	170,000	253,827-ND		125,360	2,208,964
1992	1,723,641	170,000	82,506-ND		111,073	2,147,053
1993	1,664,994	189,368	98,416- ND		110,595	2,143,515
1994	1,825,185	201,840	106,819-ND		80,014	2,317,699
1995	1,874,082	212,712	92,584-ND		78,408	2,346,781
1996	2,090,164	224,331	92,584-ND		72,029	2,572,410
1997	2,183,538	240,256	92,058- ND,CDBG-56,000		62,075	2,735,772
1998	2,273,745	258,344	100,000	22,584	74,168	2,837,105
1999	2,439,388	300,155	100,000	22,945	115,468	3,076,164

Source- Audit reports- Statement C, in Annual reports

ND- not differentiated \*\* Doesn't add up to items in this table, includes only significant revenues

NA- new auditors took over in 1998, Annual Report does not show breakdown of State revenue sharing



## REVENUE

The major source of revenue is, of course, the property tax. In 1990, it was 73% of all revenue, and in 1999, 79%. As explained above the property tax is directly tied to the increase in expenses. It increased from ~ \$1.4 million in 1990 to \$2.4 million in 1999, a 71% increase.

TABLE F-C-5  
SIGNIFICANT SOURCES OF REVENUE

Year	Property Tax	Excise Tax	Intergovernmental*ND Revenue Sharing Highway Funds	Education	TOTAL **
1990	1,429,656	169,652	126,650-ND	155,891	1,944,719
1991	1,641,852	170,000	253,827-ND	125,360	2,208,964
1992	1,723,641	170,000	82,506-ND	111,073	2,147,053
1993	1,664,994	189,368	98,416- ND	110,595	2,143,515
1994	1,825,185	201,840	106,819-ND	80,014	2,317,699
1995	1,874,082	212,712	92,584-ND	78,408	2,346,781
1996	2,090,164	224,331	92,584-ND	72,029	2,572,410
1997	2,183,538	240,256	92,058- ND,CDBG-56,000	62,075	2,735,772
1998	2,273,745	258,344	100,000	22,584	2,837,105
1999	2,439,388	300,155	100,000	22,945	3,076,164

Source- Audit reports- Statement C, in Annual reports  
 ND- not differentiated      \*\* Doesn't add up to items in this table, includes only significant revenues  
 NA- new auditors took over in 1998, Annual Report does not show breakdown of State revenue sharing

The excise tax, however, is an independent measure of the increase in automobile or boat purchases. It increased from (rounded off) \$170,000 to 300,000 , a 77% increase.

Revenue sharing, including highway funds, decreased from \$127,000 to \$123,000, a decrease of 2.9%.

### Education Subsidy

Because the education budget is so complicated, it deserves its own sub-section. The Education revenue shown on Table F-C-5 is the subsidy for secondary education tuition only.

Damariscotta, along with Bremen and Newcastle are part of the Great Salt Bay Consolidated School District. The state subsidy goes directly to the School District. According to Diane Wyman, the Finance Officer for the School District, Damariscotta's share of the state subsidy for Elementary school was \$249,326. IN 1999

Therefore the total state aid to education on behalf of Damariscotta in 1999 was:

Secondary Tuition	\$115,468
Elementary School	\$249,326
Total School Subsidy	\$364,794

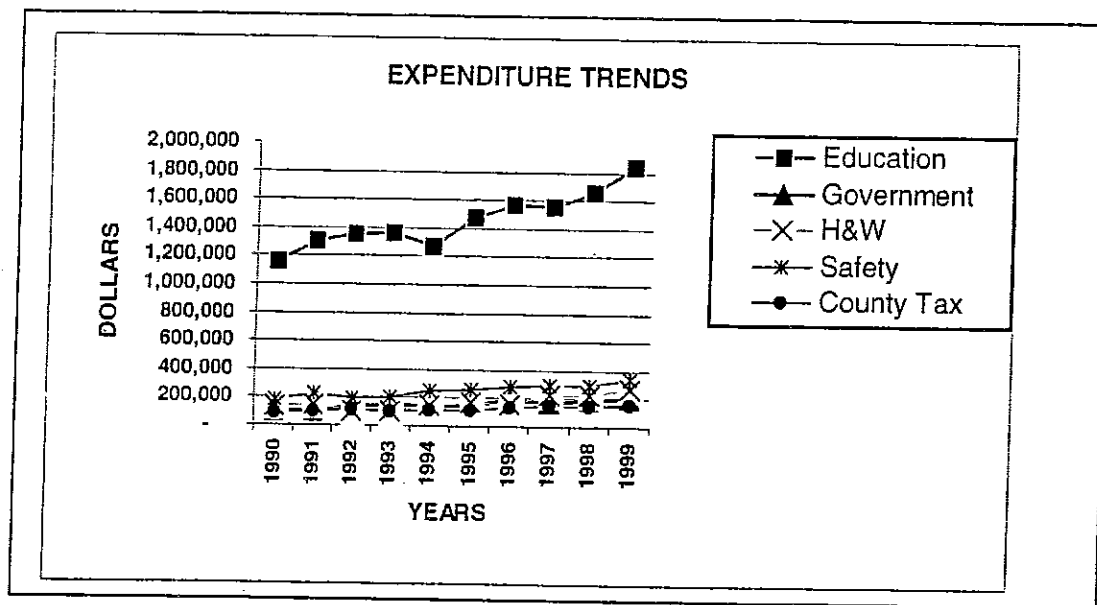
The subsidy for secondary tuition decreased from \$156,000 in 1990 to \$ 115,468 in 1999, a decrease of 25%.

### EXPENDITURES

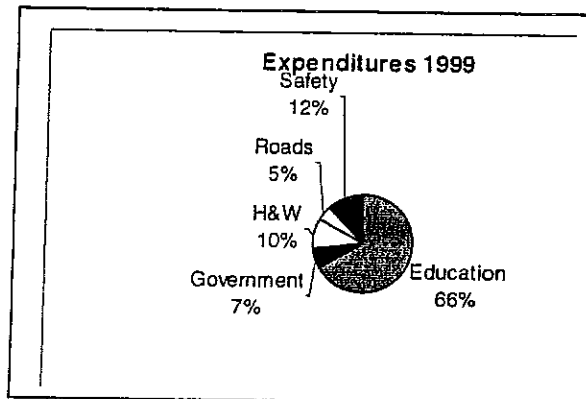
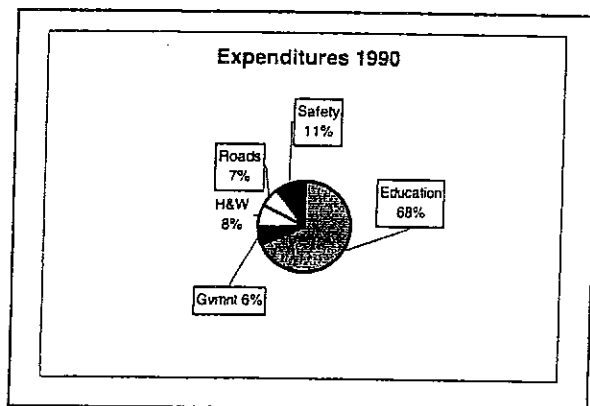
Table F-C-6 shows the major categories of expenditures over the last 9 years. It shows that the total budget has increased by 57%, from \$ 1,926,293 to \$3,019,985. The largest increase was " H&W" due to taking on the responsibility for disposing of solid waste.

TABLE F-C-6  
SIGNIFICANT EXPENDITURES

Year	Education	Government	H&W	Roads	Safety	County Tax	TOTAL* Expenditures
1990	1,160,526	107,227	131,962	111,239	183,985	95,556	1,926,293
1991	1,303,780	107,904	142,254	126,229	223,736	106,629	2,184,998
1992	1,355,474	135,093	101,262	126,712	191,534	108,689	2,052,658
1993	1,364,695	149,031	107,043	102,979	200,436	104,743	2,081,133
1994	1,274,486	148,258	142,057	142,023	250,829	110,535	2,369,415
1995	1,480,231	142,346	167,269	130,880	258,745	113,682	2,366,507
1996	1,571,050	188,673	164,251	133,907	287,512	132,268	2,975,661
1997	1,557,405	165,309	222,106	131,962	290,034	142,109	2,695,263
1998	1,658,216	191,633	224,456	129,491	290,841	143,299	2,729,893
1999	1,836,937	199,341	269,311	135,730	344,123	160,118	3,019,985
%change 1990-1999	58%	86%	104%	22%	87%	68%	57%
* Does not add up because not all expenses are included							
Source: Schedule A-3 '90-'97, Statement C '98,'99 of Auditor's Report							



Operation of the transfer facility and tipping fees add up to \$230,703, by far the largest share of this item. The graph above shows the trends by major category and



the pie charts above show the relative share of each category in the budget. A comparison of 1990 and 1999 does not show significant difference

Education is the largest part of the budget. In 1990 it was \$1,160,526, 68 %, and in 1999 \$1,836,937, 66% in 1999.

The County tax was \$95,556 in 1990 and \$160,118 in 1999, a 68% increase but constant 5% of the budget.

The increase in public safety was 87%, second only to Health and Welfare. That increase is probably due to the new fire station.

### Observations on Revenues and Expenditures

Comparison of changes in revenue and expenditure explains why the property tax has increased by 71%. Expenditures have increased by 57%, H&W (solid waste) by 104%. In the meantime, support from the state revenue sharing has decreased by 2.9% and secondary tuition by 25%.

While excise tax has increased by a significant 77%, excise tax is only 10% of the entire revenue, so its increase does not make much difference. The property tax is 80% of the total revenue. It is the only tax that fluctuates with the increase in expenses.

### FUND BALANCES AND BORROWING CAPACITY

Table F-C7 is the summary of the fiscal condition of the town over a period of 9 years. It includes the loan and debt payments for the Great Salt Bay School District, which increased the debt load considerably. The loan taken out in 1999 was \$3,000,000 Damariscotta's share of that, based on its enrollment, is \$1,398,000 or 46.6% The loan payment in '99 was \$297,669; Damariscotta's share is \$170,458.

The Bottom Line Table F-C-7 shows that

- ◆ in all but three years there was a surplus,
- ◆ the long term debt is \$1,545,825
- ◆ the accumulated Fund Balance is \$580,954 and
- ◆ there is \$161,124 in the Capital Reserve Account.

TABLE F-C-7  
THE BOTTOM LINE  
Fund Balances

Year	Total Revenue	Total Expense	Surplus (Deficit)	Capital Outlay	Long term* Debt	Debt* Payment	Undesignated Surplus	Reserve* Funds
1990	1,944,719	1,926,293	21,336	-	124,154	58,967	294,225	190,031
1991	2,208,964	2,184,998	23,966	-	-	124,154	358,674	167,881
1992	2,147,053	2,052,658	94,394	-	-	-	400,045	216,104
1993	2,143,515	2,081,133	62,382	-	-	-	373,770	229,388
1994	2,317,699	2,669,415	(51,716)	81,847	40,000	20,000	486,344	256,264
1995	2,346,781	2,366,507	(19,726)	-	-	20,000	176,395	266,249
1996	2,572,410	2,975,661	(403,251)	454,115	213,509	7,649	238,996	262,882
1997	2,735,772	2,695,263	40,509	51,917	191,615	145,411	304,459	282,380
1998	2,837,105	2,729,893	107,212	85,750	169,720	33,080	387,205	267,478
1999	3,076,164	3,019,985	56,179	333,838	1,545,825	170,458	279,069	161,124

Source: Auditors Report published in Annual Reports

\*Includes debt for Gr Salt Bay Elementary School

### Fund Balances

Fund balances are the accumulated surplus. The unappropriated, undesignated part of this fund is shown on the table above. This undesignated fund was \$294,225 in 1990, and \$279,069. It has fluctuated between the low of \$176,395 in 1995 to a high of \$486,344 just the year before.

According to the State Planning Office's Comprehensive Planning: A Manual for Maine's Communities "the town's fund balance ( don't know if they mean undesignated but will assume so) should be on the order of one-twelfth (8.3%) of the budget."

**In 1999, the undesignated fund balance was \$279,069 or 9% of the budget. This is within the guidelines, but not by much.**

### Borrowing Capacity

Damariscotta has kept its debt load at a low level in the last 10 years.. The most expensive items have been the land and construction of the fire station and most recently the loan for the school construction.

The State Planning Office cites two guidelines for analyzing capacity for taking on new debt:

- 1." The town's debt should not exceed 5% of the State's assessed valuation. The legal limit is actually 15% ( Title 30-A, MRSA, Section 5702) ... (that) would be stretched beyond its means"

**Damariscotta's State Assessed Value in 1999 was \$168,650,000. Its long-term debt was \$1,545,825. That .917% of the state assessed value, well below the 5% guideline.**

- 1. The towns per capita debt should not exceed 4-5% of the Town's per capita income.*

Assuming a population of 1855, the per capita debt is \$833. Damariscotta's 1989 per capita income (admittedly out of date, but that is the latest figure available) was \$16,502. **The per capita debt is 5.05% of the per capita income.** That is within the guideline, but is very close. This percentage will go down when the 2000 census per capita income is used. Nevertheless, it is rather close.

## CAPITAL EXPENDITURES AND FUNDS

A capital reserve account has been established and nourished at least since 1990. In 1994 there was \$64,500 added. Because of recent capital expenditures the Reserve

ACCOUNT-FUNDS	1994	1995	1996	1997	1998	1999
Fire Truck	78,645	98,163	88,548	98,349	71,381	83,852
Highway Dept..	17,409	18,191	20,291	22,456	24,665	1,105
Castner School	88,781	89,404	90,246	91,596	96,578	2,108
Police Dept.	23,135	30,587	17,913	26,136	10,488	15,055
Sidewalk	10,450	10,804	16,170	21,012	25,877	31,505
Computer	982	3,080	4,624	4,118	3,159	4,139
Municipal Bldg	21,574	539	9,207	2,412	2,519	1,464
Parking Lot	15,088	15,480	15,883	16,301	10,480	10,856
Sand/Salt Shed					15,000	10,968
<b>TOTAL</b>	<b>256,064</b>	<b>266,248</b>	<b>262,882</b>	<b>282,380</b>	<b>260,147</b>	<b>161,052</b>

Source: Capital Reserve Funds     Schedule A-13 or A-14 of the Annual Report

Account has diminished to \$27,000 in 1999.

### *Fiscal Management of the Fire Department<sup>20</sup>*

In 1983 the Insurance Service organization (ISO) rated the Town for fire protection. Due to lack of equipment, the Town received a + rating of 8 in the area of Town serviced by fire hydrants. (The rating scale is 1 to 10, where 10 is an inadequate or no fire protection at all.)

<sup>20</sup> We asked Bill Brewer, who had been the Auditor of the Town until 1998 to review this element of the Supplement for accuracy. He submitted the following information from his perspective as Fire Chief.

The inadequacy of fire hydrants has been addressed by the Great Salt Bay Sanitary District, acquisition, and upgrading of the system is described in Public Water and Sewer element of this Supplement. The Fire Department contributed to the financing of the upgrade.

Since 1983 the Fire Department has become very progressive in updating its equipment and facilities. After a few false starts, the Town Administrator and taxpayers approved the construction of a new \$500,000 fire station on Biscay Road. Due to an active building committee and many volunteer hours donated by the Department, the final cost of the building was \$2,500 under budget.

At the time as the building project, members of the Fire Department established personal contact with fire departments in New York State. This allowed the Town to purchase the following fire trucks:

In 1996, Ward LaFrance Pumper	cost	\$12,500
In 1997 Maxim 100 ft Ladder Truck	cost	\$50,000
In 1998 American La France	cost	\$30,000

These acquisitions, including the cost to repair, were less than the cost of the Town purchasing one new fire truck (140,000-150,000)

In addition, during 1999, the Fire Department in cooperation with the Miles Memorial Hospital, who purchased a truck chassis, was able to put in service a 3,000-gallon Tauton A 4.. During 2000, the Town of Bristol and its Fire Department turned over a reserve vehicle to the Town, now in service.

With the \$11,000 worth of equipment the Town received from the Forestry Grant Program, awarded to Lincoln County for the damages in the 1998 Ice Storm Program, the Department was able to augment and expand its ability to suppress fires in the urban interface areas.

The Insurance Service Organization is currently rating the Town's fire protection capability. From all indications, the 8 rating should drop to +6. This will mean a 30% reduction on homeowner's insurance premiums.

Since 1990, the Fire Department has had a plan in place to meet the needs of the community for the next 40 years. This included the acquisition of the required equipment to get the lower ISO rating. The Town also increased the contribution to the Capital Reserve from \$5,000 to \$25,000. At the \$25,000 funding level, as fire trucks reach the end of their useful life they can be replaced without having to finance the acquisition.

The Selectmen and tax payers have been supportive in the advances made since 1983 in the Fire Department improving its abilities to handle the growth in Town.

Within the next 2 years the Fire Department will have to fund a full time employee to handle all the paper work and building inspection that are now being mandated

*Capital Expenditures and Financing*

The major capital outlay in the last 9 years was the Fire Station. The cost, including the purchase of the land for \$85,000, was ~ \$540,000. Other capital expenditures are shown on Table F-C-9. Total capital expenditures over the 9 years were \$1,525,771.

TABLE F-C-9  
CAPITAL EXPENDITURES AND FINANCING

YEAR	ITEM*	COST	FINANCING
1994	Computer	16,272	8,000 Capital reserves rest General fund
	Municipal Building ?	20,000	Capital reserves
	Land Acquisition	84,934	40,000 loan from first National bank @ 3.65% interest
	For Fire Station		The rest out of Fund Balance Reserves in '93
1995	Municipal Building	14,843	From Capital reserves
1996	Police Cruiser	23,058	from Capital reserves over two years
	Used Fire truck	30,000	from Capital reserves over two years
	New Fire Station	454,115	Borrowed \$218,3456 from People's @ 6.1% interest payable over 10 years The remainder from General Fund, Fund balance
	Street Lights	15,479	General Fund
1997	Municipal Bld repairs	14,165	\$5,000 from reserves, rest from gner'l fund
	Transfer facility	189,000	181,800 tipping fees, 7,200 operation
	New Fire Station	53,971	gen'l fund carried forward from last year
	Used Fire Truck	22,736	From Capital reserves
	Street Lights	14,190	General Fund
1998	Used Fire Truck	50,035	om Capital reserves over two years
	Police department	26,086	? Cruiser?
	Computer	2,592	From Capital Reserves
	Parking Lot Paving	6,239	From Capital Reserves
1999	Water-main Project	341,886	145,053 from Genrl fund, rest, grants, & loans to Utility District
	Sand and Salt Shed	114,097	Capital reserves, Castner School fund, will be partially reimbursed
	Fire truck	30,312	from Capital Reserves (reimbursed by insurance claim)
	Computer	635	from Capital Reserves
	Municipal Bldg	1,126	from Capital Reserves
	Elementary School	1,398,000	Loan - the total is \$3 million shared with Bremen and New
<b>TOTAL</b>		<b>1,525,771</b>	

\* most of this information was gathered from schedule A-3 of the Auditors reports except in 1998 and 1999 when it is found in Schedule B Capital Project Funds

*Capital Investment/Improvement Planning*

With the exception of the Fire Department, which has a 40 year Capital Investment and Improvement Plan, there is no formal Capital Investment or Improvement Planning process.



A Capital Investment Plan is a precursor to a formal Capital Improvement Plan. According to State Planning Office guidelines, "*it identifies the facilities needed to accommodate projected growth or replacement.*"

The plan for capital improvements

- ◆ provides a mechanism for estimating capital requirements;
- ◆ scheduling all projects over a fixed period with appropriate planning and implementation;
- ◆ budgeting high priority projects and
- ◆ developing a project revenue policy for proposed improvements;
- ◆ coordinating the activities of various departments in meeting project schedules;
- ◆ monitoring and evaluating the progress of capital projects;
- ◆ informing the public of proposed capital improvements.

A Capital Improvement Plan is a fiscal tool that budgets major capital improvements over a 5-6 year period and tracks the community debt to pay for the improvements.

The headings (template) for such plan might be:

ITEM	How Financed	FY 2001		FY 2002		FY 2003 etc	
		Cash	Dbt Pmnt	Cash	Dbt Pmnt	Cash	Dbt Pmnt

### Issues and Implications

#### ***Borrow or Use Fund Balance***

Damariscotta's financial condition is sound. If the State Planning Office guidelines were followed the Undesignated Fund Balance could drop to \$250,659 and still be within the 8.3% of the budget (in 1999 figures)

The debt load within State Planning Office's conservative guidelines could be as high as \$8,432,500. The Debt load in 1999 is \$1,545,825. The implication is that the town has considerable flexibility. It could decide to use the surplus for needed capital improvements, or to reduce the property tax and take out a loan for needed capital improvements. Or it could do a little of both which is what it has been doing for at least the last 9 years.

#### ***Regional Service Center and Tax Exempt Property***

The most startling revelation is the amount of tax exempt property in Damariscotta. The term "Service Center " takes on new meaning as the hospital expands, offers Congregate Care for the elderly, and non-profit, affordable housing is built.

This is a complex regional problem for which there is no easy solution. While Damariscotta certainly benefits from the excellent hospital, congregate care, churches and service organizations, it also carries some of the burden aproviding fire, police, ambulance and solid waste services for these facilities. Is the payment in lieu of taxes reasonable? How could other towns share the cost?

These are age-old regional issues much discussed in connection with the large cities, such as Portland. Their impact is quite striking in a small town with a population under 2,000.

Implementation Strategies

1. The new initiatives under the Growth Management Act will be seeking to support the viability of Service Centers. Damariscotta is already designated as such, but this issue needs to be emphasized when applying for grants for any of the improvements and services, which are needed for these public services.
2. The Town will prepare a 10 year Capital Improvement Plan in the next fiscal year
3. The Selectmen and the Finance Committee should review the Town's Fiscal condition annually and examine the implications of financing versus using reserves.

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## EXISTING AND FUTURE LAND USE PATTERNS

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### *STATE GOAL*

TO ENCOURAGE ORDERLY GROWTH AND DEVELOPMENT IN APPROPRIATE AREAS OF EACH COMMUNITY, WHILE PROTECTING THE STATE'S RURAL CHARACTER, MAKING EFFICIENT USE OF PUBLIC SERVICES AND PREVENTING DEVELOPMENT SPRAWL.

### *LAND USE INVENTORY*

Damariscotta is a service center community. It is one of the two major trading centers in Lincoln County (the other is Boothbay Harbor). It offers goods and services to both the winter and summer populations of this area.

Damariscotta consists of 13.96 square miles and contains 1259 separate ownership parcels. Its land use can be divided into 9 categories. In 2000, there were:

1. **Single residential and minor apartment buildings:** 835.
2. **Mobile Homes -** 123 mobile homes 59 of which are located in 3 mobile home parks
3. **Multi-family residential developments,** excluding the Downtown: there are 8 multi-family complexes for a total of three mobile home parks; three housing projects for elderly for a total of 221 units, three of these are elderly complexes with 80 units with various degrees of care.
4. **Commercial buildings:** 139 located throughout the town. The main concentration is in the village; others extend on Bristol Road, Biscay Road, and Business Route 1.
5. **Civic and Institutional:** Great Salt Bay Sanitary District Utility Building, L.C. Rifle Club, YMCA, Great Salt Bay School, 5 churches- Damariscotta Baptist, United Methodist, Lincoln County Assembly of God, Quakers, Christian Science; The Skidhomp Library, (being expanded this year) Chapman Hall House and Museum, Damariscotta River Association Heritage Center, Wells Hussey Post, Alna Lodge, Information Bureau, municipal building, municipal parking lot, the old dump site, 2 lots approximately 15 acres and the Miles Health Care Center., a Community Center, and sand salt shed.
6. **Agricultural/Forestlands:** The only agricultural land left in Damariscotta is in the Salt Bay Area. It is a hay field under an agricultural easement held by the Department of Agriculture, Food, and Rural Resources. There are 45 acres registered in the Farm and open Space Tax Program. There are 1,234 acres in the Tree Growth Tax program. 498 acres of which are enrolled in the Forest Stewardship program. (See Natural Resources Section, page 8.)

7. **Light Industry:** There are a few light industrial companies in town. These include The Duck Boat Company on Biscay road, and the Round Top Ice Cream place.
8. **Heavy industry/ mining:** Damariscotta has no heavy industry or mining activity
9. **Conservation and Community Access Land:** - More than 150 acres in Damariscotta have been preserved as undeveloped open space through the efforts of the Damariscotta River Association, a land trust dedicated to conservation of ecologically, scenically, and historically significant properties and resources. Most of this land, including the association's 100+ acre Salt Bay farm on Belvedere Road, is available for public recreational, educational, and other uses. Other properties open to the public include the state-owned Whaleback Shell Middens and adjoining shoreland, the fields of Round Top Center for the Arts. The Riverside Park/parking lot is, of course municipal property, and is public access.

### ***HISTORICAL PATTERN***

Village center is a thriving, charming commercial area. Unlike Wiscasset or Camden, thanks to by-pass Business Route 1, the tourists that pass through are either coming to Damariscotta or are on their way to the Pemaquid and South Bristol Peninsulas.

The views of the Town from across the River along Route 1 are inviting. The view of the River from the newly landscaped municipal parking lot is also an attraction.

The immediate area surrounding the Downtown is residential, with some traditional New England homes mingled with the smaller homes in today's tradition.

Seasonal cottages can be found along much of the shoreline of Pemaquid and Biscay ponds

### ***CHANGES IN THE LAST 10 YEARS***

Damariscotta's land use pattern has not changed significantly from that reported in the 1962 and 1986 comprehensive plans. The main business growth is along the town's 3 major highways: Business Route 1, Biscay Road, and the Bristol Road. The commercial activity continues to expand from the village along Business Route 1 and up the Biscay Road. The professional service sector continues to grow along the Bristol Road toward the Hospital complex. Damariscotta's small town character allows many service providers and home businesses to be intertwined among the neighborhoods.

Building along the rural routes, "sprawl " has occurred, but the growth has not been dramatically noticeable.

More cottages are also being built, but the trend here is conversion of cottages to year around homes.

The number of single family homes has increased by about 100 in the last 20 years. That is about a 12% increase. The majority of these homes have been built in residential subdivisions and not along the 3 major highway routes. The subdivisions in the last 8 years have been large lots, for example, a 40-acre lot divided into four lots.

Water and sewer service is provided to the village area, to the Hospital in the South and along Business route 1. Public water service now extends all the way up to Route 1. A major upgrade to the water main on Maine Street to 12" and to the Hospital complex has recently been completed. (See Public Water and Sewer Section of this Supplemental Plan)

### ***OPPORTUNITIES AND CONSTRAINTS TO FUTURE GROWTH***

Future growth is likely to be consistent with past trends. Individual homes will be built in the rural areas in unsewered areas probably on relatively large lots.

Present building density and lack of parking space limit major growth in the downtown area. An implementation strategy in the Transportation section of this Supplement is to review the parking situation (See Transportation element)

### **Natural Resource Constraints**

Damariscotta is a very attractive town, not only because of its traditional picturesque Village Area but because it is blessed with four large ponds, the Damariscotta River and three creeks with extended wetlands having associated isolated "wilderness areas"

These natural areas are also a constraint to extensive residential growth. As shown on the maps prepared for the town by Maine Mapping Service, these constraints include steep slopes, flood plains and wetlands, or marshy areas. The extensive marshy eco-systems and the vulnerability of the four ponds are amply discussed in the revised Natural Resources section.

### **Opportunities**

Since public water has been extended all the way to Whispering Pines Mobile Home Park, along Business and Route 1 and to Standpipe Road, there appears to be some opportunities for commercial growth along Business Route 1 and further than the currently 500' zoned commercial east on Biscay Road.

In spite of the relatively small area of the town and the extensive natural constraints, there are still some opportunities for residential development along roads. Back lands currently land locked could be subdivided.

There may be some redevelopment opportunities along the shorelines of the ponds. There appear to be a limited number of suitable lots along the north east shores of Paradise Pond. There seems to be some building activity around Biscay Pond, including more conversions of seasonal camps.

There are also some lots currently in Tree Growth program along Back Meadow Road and Egypt Road

### ***LAND USE ORDINANCES***

Damariscotta has been among the latecomers to land use regulations. Until the commercial development boom, started in the 1980's, there did not seem much need for controls. The voters defeated a zoning ordinance in 1962. An ordinance was enacted in 1986 but it had a short stay. It was repealed by a close vote 6 months after its enactment.

Damariscotta adopted a subdivision ordinance in 1989, an updated Shoreland Zoning ordinance in 1992, and a Site Plan Review Ordinance in 1994. After 6 years of hard work by a committee of the Planning Board, the Town finally adopted a Land Use Ordinance, in March 1998.

### ***Shoreland Zoning Ordinance***

The Town adopted a DEP approved Shoreland Zoning ordinance in 1992 (20 years after the law was enacted). The map shows that the 250' Shoreland area has been carefully reviewed and designated into four Districts: Stream Protection, Resource Protection, Commercial, and Residential. The intention is that the uses and practices conform to the performance standards in the ordinance.

Amendments were made to allow for the current hospital and the professional buildings along Bristol Street in 1997.

Most of the shoreland zone is designated Limited Residential. Steep slopes are designated Resource Protection as required by the law. That means that new residential structures, including multi-unit residential are allowed with a permit either from the Planning Board or Code Enforcement office. Protection of the shoreline and water quality is accomplished by requiring that structures be set back at least 100' from the River and ponds and 75' from the banks of streams. Forestry and agriculture have to follow the performance standards designed to minimize soil erosion and run-off.

### ***Site Plan Review***

Under the new Site Plan review ordinance, the following activities require a permit:

- ♦ All new construction of non-residential and multi-family buildings
- ♦ Enlargement or change of use of all existing non-residential and multi-family dwellings
- ♦ Conversion of residential to non-residential or multi-family
- ♦ Removal of more than 10,000 sq. feet of topsoil
- ♦ Reactivation of non-conforming uses after 12 months of inactivity

Performance standards are directed at buffering landscapes and fitting the new activity harmoniously into the terrain and existing neighborhood.

Standards of vehicular access and parking are designed for safety and to minimize impact on existing roadways and traffic. Off-site parking is allowed downtown. Storm water management standards are also included.

#### **Land Use Ordinance-**

The purpose of The Land Use Ordinance adopted in March of 1998 is:

*"...to further the maintenance of safe and healthful conditions and the general welfare, to prevent and control water pollution, to protect wildlife, to control building sites and location of structures and land uses, and to conserve shoreland areas, at the same time providing the greatest possible latitude in individual choices of land use. The ordinance is intended to preserve the character and objectives of the community as determined by its citizens and outlined in its Comprehensive Plan..."*

The Ordinance divides the Town into four land use districts: Rural, General Residential and the two commercial districts. The purpose of the General residential District is

*"To preserve the physical, aesthetic and social quality of Damariscotta's developed residential areas and to provide for areas within the Town for residential growth"*

The purpose of the Commercial Districts is

*"To provide general retail sales, service, and business space within the Town of Damariscotta in locations capable of conveniently servicing community wide and/or regional trade areas".*

The purpose of the Rural District is:

*To allow a maximum diversity of uses, while still maintaining the essential rural character of this area"*

The Ordinance allows for greater density in areas served by water and sewer.

See attached map for boundaries of the districts. The General Residential District is in the immediate vicinity of downtown and behind the three commercial roads, Business Route, 1, Biscay Road and Bristol Road.

The C-1 District is the downtown commercial area. C-2 is all other commercial area- 500 feet on both sides of Business Route 1, except 1000' on the East Side, between School St & Shop 'n Save, one-mile east on Biscay Road, and 500' on either side of Bristol road in the vicinity of the Hospital.

The Rural District is the land area beyond the shoreland zone, the watershed of all the ponds in town and all other land not in another district.

There are slight differences in uses allowed in the four districts. All districts allow single, two- family and mobile homes. The Rural District also allows forestry, agriculture and gardening businesses.

Home occupations, professional offices, multi-family units, condominiums, rooming houses, antique stores, and galleries are conditional uses in all districts. Campgrounds, mobile home parks and vet stables are conditional uses only in the Rural District. Light manufacturing and medical related businesses are allowed as conditional uses only in Commercial District 2.

Conditional uses are not consistent with the land uses in that district, but are allowed upon review and are conditioned upon conformance to the performance standards of the site review ordinance. There is a presumption that if all conditions are met, the use will be allowed.

The difference between districts is in lot sizes. In General Residential District, the minimum lot size is 10,000 sq. ft if sewerred, and 40,000 sq. ft., if not. In Commercial 1 District, all sewerred, the minimum lot size is 10,000sq. In Commercial District 2, the minimum lot size is 10,000 sq. ft., if sewerred and 40,000.sq ft, if not.

### *Analysis*

Land Use ordinances are a set of tools a community can use to guide the type and location of future developments. Since current ordinances reflect the existing uses and the availability of sewer and water, they, by themselves, do not have a strong role in guiding future land use patterns.

The Shoreline Zoning too reflects existing residential use. It was carefully done but may not be functioning to its full ability to protect the water quality of the ponds.

The Site Review Ordinance is modern. Some apparent deficiencies may include the lack of a definition of "significant expansion", and lack of ability to control the number and size of signs<sup>21</sup>.

The consistency of the conditional use permit standards with the performance standards in the Site Review Ordinance is an effective means of avoiding duplication and inefficiencies quite prevalent in other towns with older ordinances.

The Town actually appears to have more than the 4 districts delineated. There seem to be 7 different land use patterns:

1. Village residential
2. Road Front residential
3. Rural residential-subdivision
4. Lakeside seasonal or converted residential

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<sup>21</sup> BobFaunce, Planner under Contract with State Planning office, 1999



5. Village Commercial
6. Roadside Commercial
7. Hospital Professional

The town may consider setting different standards for each.

The Town may wish to consider a Pond Protection District in which the land use is regulated consistent with the phosphorus carrying capacity of the Pond.

As we consider protection of natural resources the following quote from Janet McMahon's Inventory for the Damariscotta River Association might help us understand the basis for the protection efforts:

*Roads and development that comes with them affect the wildlife and habitats of an area in many ways. Asphalt, lawn, and exotic species replace native vegetation. Natural drainage patterns and wetlands are altered to accommodate roads, driveways and building sites. Roads and building sites reduce the habitat available to plants and animals; many of which need a minimum amount of land and water to sustain healthy populations. Roads and driveways also block travel corridors, such as streams and wet lowlands, along which animals have passed for centuries. Finally, the mix and abundance of native fauna are affected by noise, light, and predation by domestic cats and dogs, and other factors associated with human settlement. "(This concept was published in the patterns of Development Task Force of the Maine Environmental Priorities Project, 1997.)*

### **Public Opinion**

One means of gauging public opinion is through a written survey. A survey was mailed to 1,500 box holders in 1992. 273 were returned. The results should be considered with that rather poor response rate in mind.

To assess people's feelings about growth, they were asked if the area they lived in should be Rural (no growth) or growth. Growth designation was indicated for Business Route 1 (or Round Top) and "in Town". Rural was preferred in the currently rural Back Meadow area and Bristol Road.

People were asked to indicate their preference in addressing affordable housing issues. Of the four methods presented (smaller minimum lot size, alternate zoning options such as cluster housing, incentives to developers or "some town spending") zoning received support from 50% of the responders. Response to the question if mobile homes and mobile home parks should or should not be allowed was a decided 88% who said they should not be allowed.

### **Analysis**

The response to mobile homes and parks is rather surprising, but is hard to interpret because mobile homes and mobile home parks were not distinguished in the

question. While the Land Use Ordinance allows mobile homes in all districts mobile home parks are only allowed in Rural Areas with a conditional permit

### **MAP**

The present land use, districts and proposed future land use is shown on the facing page. The original, colored map, available at the Town office is scaled at 1"= 1,000 feet. It shows the current land use, distinguishing residential from commercial and mixed use. It shows undifferentiated shoreland zones (a Shoreland Zoning Map is available at Town office), It also shows the steep slopes, flood hazard zones and land use districts, Commercial C-1 and C-2, R, residential and RU rural.

## **FUTURE LAND USE POLICIES AND STRATEGIES**

### ***Growth Areas***

#### **Issues and Implications**

Damariscotta is a mere 14 square miles, a small town by that measure. It gives the appearance of being much larger because it has been a year- round and tourist service center for 200 years. In fact Downtown Damariscotta is the service and retail center for much of the mid-coast area.

Damariscotta adopted its first town-wide Land Use Ordinance in March 1998. Its purpose is still consistent with the policies as proposed in this Supplement (See page 102 for complete description of The Ordinance). It can and will be modified to better focus on the dual priorities of this Supplement: to enhance the viability of the Downtown and to protect the unique and highly valued natural resources: Little Pond, The Upper River and Salt Bay and the two major lakes, regional recreational resources, Pemaquid and Biscay Ponds.

Land available for further development is limited. The Village is already densely developed. Downtown, including the streets now sewered and in the C-1 zone, has always been a mixed-use commercial/residential neighborhood. We think proximity to downtown serves both the elderly and low-income residents as well as the merchants by enhancing the economic vitality of the Downtown.

Commercial growth has already extended the entire length of Business Route 1. Public water has been extended recently all the way to Route 1. Public sewers extend to the Great Salt Bay School, to Miles Hospital at the South, to Newcastle on the East. Damariscotta is probably ready for one planned commercial park to encourage growth and sustain a balanced tax base.

While Damariscotta's supply of low and moderate cost housing has been increasing in recent years, our review of affordable housing points to the need for expanding low income housing opportunities.

*Policies regarding Commercial Growth Area*

1. **Assure the continued vitality of our Downtown. Encourage development to be consistent in design with the established height and setback pattern. Improve vehicular access and parking and pedestrian safety by extending sidewalks where practical and assuring that they are properly maintained.**
2. **Assure that the commercial development along Business By-Pass Rt. 1 is consistent in height, setback, and density with the current pattern. Improve pedestrian safety by extending sidewalks where practical and assuring that they are properly maintained.**
3. **In addition to encouraging the use of existing commercial zones for expanded growth, the development of a planned unit commercial growth area will be explored. In particular we have identified about~60 acres of land south of Shop 'n Save where the constraint to development is minimal and water and sewer lines are reasonably near by**

*Implementation Strategy*

1. Prepare a Master Plan for Downtown Viability. This will include at a minimum a reexamination of the boundaries of downtown, parking, and a sidewalk development and maintenance program.
2. Develop design standards for the Downtown and a Hospital/ Professional District.
3. Prepare a master plan for developing the Commercial Park. This should include design standards for the commercial development within the park, and performance standards to assure the integrity of the Castner Brook eco-system and to provide a buffer for the residential district.
4. Amend, if necessary, the Land Use Ordinance to accommodate the Commercial Park

**Policy Regarding Residential Growth**

Residential growth will be considered in:

**Areas that are now served by public water and sewer provided that the carrying capacity of neither the water nor sewer system nor the natural resources, such as lakes and ponds, are exceeded. In particular we have identified the following area as probably suitable for new residential construction:**

The southwestern section of town, where soils are generally suitable and where a development is least likely to have an adverse impact on wetlands and other natural areas. This area is north of the County Road, in the Castner Brook Area. Any subdivision would have to meet the standards of the Subdivision Ordinance and would have to respect the setback requirements of the Shoreland Zoning Ordinance.

Implementation Strategies

1. Review and modify as needed the current land use ordinance to ascertain if the need exists for more dense development in the sewerred, currently C-1 and General Residential zones.
2. Review the Ordinance to be sure those standards for conversion of historical homes is consistent with the preservation objectives.

*Rural Areas- Non-Growth Areas*Issues and Implications

Damariscotta is an unusually attractive town, not only because of its traditional picturesque Village but because it is blessed by containing within its boundaries an unusual number of unique, valuable and/ or threatened natural resources.

The significance and uniqueness of the upper river and the Salt Bay has been recognized at the national and state level. One pond is the surface water supply for 1,000 residents of Damariscotta and Newcastle. Two other ponds have been found, by DEP to be imperiled.

We also have a network of three creeks, mini Eco-systems, associated with extended wetland lands, or spacious meadows, providing a feeling of isolation and wilderness.

Policy Regarding Rural Non-Growth Areas

Rural, Non-Growth, Areas are the areas we wish to protect from extensive residential development. These areas include:

- ◆ watershed of the Salt Bay;
  - ◆ watershed of Little Pond, the water supply;
  - ◆ watersheds of Biscay and Pemaquid Ponds whose carrying capacity for additional residential development is limited;
  - ◆ open meadows and wilderness wetlands ecosystems of Oyster Creek, Back Meadow, Crane Meadow and Muddy Pond which have very low densities of development interspersed among fields and woodlands.
1. The Town should give highest priority to protection of Little Pond because it is the source of drinking water for over 1,500 people year around.
  2. The Town should encourage protection of the natural, cultural and historic resources of the Upper River and Salt Bay, which are of national, state, and local significance.

3. The town should work with DEP, neighboring towns, the Pemaquid Lake Association and landowners to reclaim, restore and protect the water quality of Pemaquid and Biscay ponds
4. The Town wishes to assure that future land use development is consistent with the historic and natural character of the town and with the objectives of the district designations and that it affords maximum protection to the unique, significant and, in some cases, imperiled natural resources of the Town.
5. A Committee appointed by the Selectmen or the Planning Board should review the Shoreland Zoning and Subdivision ordinance to assure that they are consistent with recent changes in state law.

#### Implementation Strategies

1. We will evaluate residential applications to assure that when built they do not exceed the carrying capacity of the lakes and other natural areas.
2. Broaden the purpose of the Rural District and explore creating at least the following sub-districts:
  - a. Lake Protection Subdistrict
  - b. River, Stream and Wetland Wildlife Protection Subdistrict
  - c. Upper Damariscotta and Salt bay Protection Subdistrict
3. Develop appropriate design and performance standards for each Rural Subdistrict
4. Develop a surface water supply protection management plan to provide maximum protection. This may include an ordinance if thought appropriate
5. Work with neighboring Newcastle and Nobleboro to form a Salt Bay Watershed Protection District
6. In cooperation with local conservation organizations and government agencies, explore protective measures, including possibilities of designating appropriate marine protection areas in Salt Bay.
7. Revise the subdivision ordinance to assure consistency with state subdivision law ( for example, 30-A MRSA §4401 and § 4404 designate the Upper River and Salt Bay an outstanding river segment that principle structures in subdivisions have a greater set back than in other shoreland areas
8. Upgrade Shoreland Ordinance by reviewing the Resource Protection Districts to assure the ordinance is being used to its maximum capability to protect the shorelines and water quality of the rivers, wetlands, streams and ponds of Damariscotta.

9. Investigate interest in Bremen, Waldoboro, and Bristol in forming a Watershed Protection District for Pemaquid and Biscay ponds;
10. Request the assistance of DEP and other lake association in developing protection and restoration programs such as phosphorus control ordinances.
11. Review the Land Use Ordinance to assure that uses allowed, lot sizes and set back requirements are consistent with the intent and purpose of each sub district

